Public Version

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
LIBRARY OF CONGRESS
Washington, D.C.

In re **Determination of Rates and Terms for Digital Performance of Sound Recordings and Making of Ephemeral Copies to Facilitate those Performances (*Web V*)**	**Docket No. 19-CRB-0005-WR (2021-2025)**

SOUNDEXCHANGE'S REPLIES TO THE SERVICES' JOINT PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

October 28, 2020

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SoundExchange respectfully submits the following reply to the Services' joint proposed findings of fact and conclusions of law.

I. GOVERNING STANDARD

A. The Willing Buyer/Willing Seller Standard

Response to ¶ 1. SoundExchange agrees that this proceeding is governed by the willing buyer/willing seller standard, as set out in 17 U.S.C. § 114(f)(1)(B) and 17 U.S.C. § 112(e)(4). In establishing the rates and terms that most clearly represent those negotiated in the marketplace between a willing buyer and a willing seller, the Judges look to a hypothetical market "free of the influence of compulsory, statutory licenses." *In re Determination of Royalty Rates and Terms for Ephemeral Recording and Webcasting Digital Performance of Sound Recordings (Web IV)*, 81 Fed. Reg. 26316, 26316 (2016) (hereinafter "*Web IV*").

Response to ¶¶ 2-5. No response.

Response to ¶ 6. An opportunity cost methodology involves setting rates sufficient to cover the royalties that a seller would forego from other forms of licensing. *See In re Determination of Royalty Rates and Terms for Transmission of Sound Recordings by Satellite Radio and "Preexisting" Subscription Services (SDARS III)*, 83 Fed. Reg. 65210, 65231 (2018) (hereinafter "*SDARS III*"). The Judges have previously held that rates based on opportunity cost are consistent with effective competition. *Id.* at 65238. They are also the [[redacted]]. *See* 8/20/20 Tr. 3126:22-3127:8 (Shapiro). Setting rates below opportunity cost would transform record companies into forced sellers, obligated by virtue of the statutory license to subsidize distributors. Ex. 5601 ¶ 80 (Willig WRT); 8/5/20 Tr. 348:9-25 (Willig).

In their review of rate-setting methodologies previously adopted by the Judges, the Services conspicuously omit Shapley Value analysis. In *Phonorecords III*, the Judges credited Shapley Value analysis as one way to address any holdout power conferred by a complementary oligopoly. *In re Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)*, 84 Fed. Reg. 1918, 1933 n.69, 1950 (2019) (hereinafter "*Phonorecords III*"). Shapley Value analysis also addresses competition issues by giving labels and distributors equal opportunity to function as must haves. SX PFFCL ¶ 570. And the methodology is broadly consistent with the Judges' statutory charge, *id.* at ¶¶ 565-70, enabling the Judges to apportion surplus in a more reliable manner than a standard Nash bargaining solution, *id.* at ¶¶ 557-63, 1023-43.

B. The Judges Should Adopt an Evidence-Based Approach to Assessing Effective Competition and Not Rely On Stale Impressions of the Marketplace

Response to ¶ 7. The governing statute, 17 U.S.C. § 114(f)(1)(B), "does not compel any particular level of competitiveness." *SoundExchange, Inc. v. Copyright Royalty Bd.*, 904 F.3d 41, 56 (D.C. Cir. 2018). Rather, it provides the Judges with "discretion to identify the relevant characteristics of competitiveness on which to base [their] determination of the statutory royalty rates." *Id.* at 57. The Judges have reasonably interpreted the statute "to authorize the setting of rates at levels that would prevail in a market characterized by effective competition." *Id.*; *Web IV*, 81 Fed. Reg. at 26332; Ex. 5602 ¶ 17 (Orszag WDT); Ex. 5600 ¶ 6 (Willig CWDT). Accordingly, SoundExchange's experts adopt methodologies that produce rates consistent with a market characterized by effective competition. *See* SX PFFCL ¶¶ 259-486 (Orszag), 790-818 (Willig).

Response to ¶ 8. SoundExchange incorporates its response to ¶ 7, *supra*.

Response to ¶ 9. The Judges have previously "accept[ed] certain principles regarding the nature of effective competition." *SDARS III*, 83 Fed. Reg. at 65238. For example, the Judges specifically noted that "[b]etween the extremes of a market with 'metaphysically perfect competition' and a monopoly (or collusive oligopoly) market devoid of competition there exists '[in] the real world . . . a mindboggling array of different markets' . . . all of which possess varying characteristics of a 'competitive marketplace.'" *Id.* (alterations in original) (quoting *Web IV*, 81 Fed. Reg. at 26333). The Judges also observed that "'[s]teering' is not the only way the inefficient market power of complementary oligopoly can be offset or mitigated in order to establish an effectively competitive rate." *Id.*; *see also id.* (explaining why setting rate equivalent to opportunity cost was consistent with effective competition).

Response to ¶ 10. The Services grossly mischaracterize the D.C. Circuit's *Phonorecords III* decision, which was purely procedural and issued under a different rate-setting standard. The Services claim that the D.C. Circuit "reiterated the importance of effective competition and the corresponding need to offset unchecked market power in setting appropriate royalty rates." JPFFCL ¶ 10. But the D.C. Circuit said no such thing. The portion of the opinion quoted by the Services is simply a procedural background section describing the Judges' determination. *Id.* (quoting *Johnson v. Copyright Royalty Bd.*, 696 F.3d 363, 372 (D.C. Cir. 2020)). It does not address, and certainly does not alter, the D.C Circuit's prior ruling that the governing statute "does not compel any particular level of competitiveness." *SoundExchange*, 904 F.3d at 56.

The relevant aspect of the court's *Phonorecords III* decision concerns a challenge to the Judges' decision to adopt a rate structure that increased certain rates while uncapping the total content cost prong of the royalty calculation. *Johnson*, 969 F.3d at 380. The appellant services claimed this violated their procedural right to fair notice and, further, that it was arbitrary and capricious. *Id.* at 380-81. The D.C. Circuit granted the former *procedural* claim, holding that the appellant services did not receive adequate notice of the modified rate structure. *Id.* at 381-83.[1] Having done so, the court expressly declined to address the appellant services' *substantive* claim

[1] The Services claim the D.C. Circuit emphasized in remanding that the only limit on the power of sound recording owners to extract excessive royalties was their desire to see "the existing interactive streaming services survive." JPFFCL ¶ 10. Again, the quoted language does not come from the D.C. Circuit's analysis of the basis for remand, but rather from a portion of the opinion summarizing the Judges' reasoning for their determination.

that the rate structure was arbitrary and capricious because it "failed to account for the sound recordings rightsholders' market power." *Johnson*, 969 F.3d at 383.

The Services also misconstrue the legal standard that governed in *Phonorecords III*. According to the Services, the D.C. Circuit remanded because the Judges "failed the willing buyer/willing seller standard" by not addressing the market power of sound recording owners. JPFFCL ¶ 10. But *Phonorecords III* was not governed by the willing buyer/willing seller standard in 17 U.S.C. § 114(f)(1)(B). At the time of *Phonorecords III*, the Judges were required to apply the four policy objectives formerly set forth in Section 801(b)(1). *Johnson*, 969 F.3d at 369 & n.4.

Finally, the evidence submitted in *Phonorecords III* is stale and says nothing about whether agreements negotiated between the major record companies and Spotify in 2017 ("Benchmark Agreements") were negotiated under effectively competitive conditions. *See* SX PFFCL ¶ 262.

Response to ¶ 11. In *Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd.*, the appellant services argued that the willing buyer willing seller standard "requires the Judges to base rates on a perfectly competitive market." 574 F.3d 748, 757 (D.C. Cir. 2009). The court rejected that claim, stating that "metaphysical perfection in competitiveness" is not required. *Id.* In drawing on subsequent determinations, without citing them, the Services omit important language. The Judges have previously defined market extremes by reference to "metaphysically perfect competition" and "a monopoly (or collusive oligopoly) market devoid of competition." *SDARS III*, 83 Fed. Reg. at 65238 (quoting *Web IV*, 81 Fed. Reg. at 26333). Endeavoring to set an effectively competitive rate entails a pragmatic search for rates between these extremes. There is no bright line to distinguish effectively competitive and noncompetitive rates, and the "fuzzy" line that approximates an effectively competitive rate "needs to be drawn *on a case-by-case basis*, from the evidence and testimony adduced." *Id.* at 65237 (quoting *Web IV*, 81 Fed. Reg. at 26343).

Mr. Orszag's evidence-based approach to evaluating effective competition permits a principled implementation of that fuzzy line and illustrates that rates negotiated between the major record companies and Spotify are sufficiently competitive. *Cf. Web IV*, 81 Fed. Reg. at 26332 ("[T]he D.C. Circuit, the Librarian, the Judges, and the CARP have all acknowledged that the Judges can and should determine whether the proffered rates reflect a sufficiently competitive market, *i.e.*, an 'effectively competitive' market.").

Response to ¶ 12. The Services did not designate this paragraph a conclusion of law, with good reason. The proposition that a market for recorded music cannot be effectively competitive if any record company is a must have is unsupported by past determinations. The Judges have repeatedly found that "[t]he question of competition is not confined to an examination of the seller's side of the market alone." *In re Digital Performance Right in Sound Recordings and Ephemeral Recordings*, 72 Fed. Reg. 24084, 24091 (May 1, 2007) (hereinafter "*Web II*"); *see SDARS III*, 83 Fed. Reg. at 65238, 65247 n.152 (reasserting need for pragmatic market analysis, reasserting that steering can offset complementary oligopoly power, and evaluating Sirius XM's countervailing market power); *Web IV*, 81 Fed. Reg. at 26367 (finding that steering can offset complementary oligopoly power); *Web II*, 72 Fed. Reg. at 24091 (holding that "[a]n effectively competitive market is one in which super-competitive prices or below-market prices cannot be extracted by sellers or buyers, because both bring comparable resources, sophistication and market power to the negotiating table" (citations omitted)); *In re Determination of Reasonable Rates and Terms for the Digital Performance of Sound Recordings and Ephemeral Recordings*, 67 Fed. Reg. 45240, 45245 (July 8, 2002) ("*Web I*") (evaluating whether agreements were between parties with "comparable resources and market power"). These determinations require an inquiry into the leverage held by both parties to a transaction and preclude the Services' proposed finding.

Because they have no favorable precedent to cite, the Services support their proposed finding with an excerpted portion of Professor Shapiro's trial testimony. The excerpt cannot bear that weight. Although Professor Shapiro testified that must-have status precludes a music service from driving effectively competitive rates through carriage competition,[2] he also testified that it was possible to derive an effectively competitive rate by looking at agreements that reflect steering competition. 8/18/20 Tr. 2637:16-2638:24 (Shapiro). That important clarification is consistent with Professor Shapiro's testimony that [[redacted]]. 8/19/20 Tr. 2868:2-2869:22 (Shapiro). It is also consistent with testimony that Professor Shapiro gave in *Web IV*. 8/20/20 Tr. 3036:16-3037:3 (Shapiro) (testifying that market containing must-have record company could be effectively competitive if services have substantial ability to steer).

The Services' citations to Drs. Peterson and Leonard fare no better. As the cited analyses confirm, it is necessary to examine both sides of a transaction when evaluating whether it was negotiated under effectively competitive conditions. *See* Ex. 1105 ¶ 66 (Peterson AWRT) (evaluating effect of impasse on both buyer and seller, albeit incorrectly); Ex. 2160 ¶ 77 (Leonard CWRT) (same); *see also* SX PFFCL ¶¶ 267-72, 301-05.

In sum, the Services might prefer to resolve any inquiry into effective competition by simple reference to the must-have status of major record companies. But that approach finds no support in law, economics, or the record in this proceeding.

Response to ¶ 13. For reasons discussed above, a market containing complementary oligopolists can be effectively competitive. *Supra* Resp. to ¶ 12. From an economic perspective, the critical question is whether must-have suppliers and counterparties have roughly equal

[2] Professor Shapiro is wrong about this. *See infra* Resp. to ¶ 16.

bargaining power. *See* SX PFFCL ¶¶ 267-72, 301-05. And in this case, the question can be narrowed further. For purposes of evaluating the [[redacted]], as well as Mr. Orszag's subscription benchmark, the critical question is whether the major record companies and Spotify had roughly equal bargaining power when they negotiated the Benchmark Agreements.

Response to ¶ 14. As an initial matter, price competition is not the only mechanism for driving rates consistent with effective competition. *Web II*, 72 Fed. Reg. at 24091; SX PFFCL ¶¶ 267-72. In any event, the Services offer a narrow, misleading description of price competition.

First, the Services assert that price competition "typically" involves one seller pricing below another.[3] The Services have no choice but to qualify the proposition. As Mr. Orszag explained, [[redacted]]. 8/12/20 Tr. 1737:9-16, 1738:12-23 (Orszag); *cf. Web IV*, 81 Fed. Reg. 26344 (observing that record company testimony did not indicate presence of effective competition because record companies had not "attempted to *meet* their competitors' pricing when negotiating with interactive services" (emphasis added)). Moreover, as Professor Shapiro acknowledged, [[redacted]]. 8/20/20 Tr. 3052:1-14 (Shapiro).

Second, the Services claim that price competition occurs when a record company offers a lower royalty rate to a music service "*in order to increase its play share relative to other labels*." JPFFCL ¶ 14 (emphasis added). However, the Services cite trial testimony illustrating that this description is incomplete and misleading. As Professor Shapiro admitted, and as other record

[3] The Services' experts provide no basis to establish the frequency with which price competition involves one seller undercutting another.

evidence confirms, price competition can occur when a lower rate is offered in order to *protect* play share. 8/18/20 Tr. 2650:2-9 (Shapiro); *see also, e.g.*, SX PFFCL ¶¶ 398-404.

Notwithstanding the Services' cramped descriptions of price competition, SoundExchange does agree that *one* way for price competition to manifest is for "a record company [to] offer[] a lower royalty rate to a music service in order to increase its play share relative to other labels." JPFFCL ¶ 14. The record in this proceeding confirms that [[redacted]]. SX PFFCL ¶¶ 421, 423, 433, 442-43.

Response to ¶ 15. Professor Shapiro overlooks the possibility that other factors can contribute to price competition in the music industry, such as the considerable and growing dependence on revenue and data [[redacted]]. SX PFFCL ¶¶ 306-17, 321, 325, 328-38.

Response to ¶ 16. The record confirms that [[redacted]]. Moreover, the record confirms that [[redacted]]. In other words, Professor Shapiro is correct that carriage competition can promote price competition. But his theoretical approach to analyzing the nature, emergence, and effect of carriage competition is at odds with the record.

First, Professor Shapiro asserts that interactive services cannot create carriage competition because they would be unable to survive without a record company's recordings and therefore cannot make a credible threat. That view turns on a significant and unsupported assumption: that a threat is only credible if the threatened action can be sustained for a very considerable period of time. Professor Shapiro provides no support for that assumption [[redacted]] *See, e.g.*, 8/25/20 Tr. 3714:15-20 (Peterson) ([[redacted]]). [[redacted]] *See* SX PFFCL ¶¶ 298-345.

Second, Professor Shapiro testified that carriage competition is created by threatening to drop a record company's entire catalog from the service. But Professor Shapiro did not and cannot explain why carriage competition necessarily involves a threat to drop a record company's entire catalog. *See* Ex. 4094 at 12-13 (Shapiro Second CWDT); 8/18/20 Tr. 2651:25-2652:17 (Shapiro). [[redacted]]. *See* SX PFFCL ¶ 592. [[redacted]]. *See, e.g.*, SX PFFCL ¶¶ 318-27; Ex. 5077 at 6 (noting that [[redacted]]).

Third, the record indicates that [[redacted]]. *See* Ex. 5264 at 4; Ex. 5265 at 2; Ex. 4020 at

1; 9/3/20 Tr. 5495:23-5497:23 (Adadevoh). [[redacted]]. Ex. 5469 at 1.

Although Professor Shapiro is wrong about which services can create carriage competition, and how services can create carriage competition, he is correct that [[redacted]] Ex. 5611 ¶ 12 & n.16 (Adadevoh WDT); *see also* 9/3/20 Tr. 5495:17-5499:8 (Adadevoh).

Response to ¶ 17. The Services concede that steering competition can manifest through the *threat* to play fewer of a record company's recordings if they are more expensive. JPFFCL ¶ 17; *Web IV*, 81 Fed. Reg. at 26357, 26367; *see also* 8/20/20 Tr. 3066:10-3067:17 (Shapiro) (conceding that steering threat can be explicit or implicit). However, the Services' focus on steering competition created by webcasters is incomplete and misleading. The Judges have recognized that playlists created by on-demand services could facilitate steering and result in the reduction of royalty rates. *SDARS III*, 83 Fed. Reg. at 65247 n.152. And, in this case, Professor Shapiro repeatedly acknowledged [[redacted]]. 8/19/20 Tr. 2868:20-25 (Shapiro); *see also* 8/18/20 Tr. 2650:10-20 (Shapiro); 8/20/20 Tr. 3047:13-18, 3050:17-3051:12 (Shapiro).

The Services' assertion that steering competition manifests in lower rates for increased share of performances is also incomplete and misleading. As discussed above, Professor Shapiro conceded—in trial testimony that the Services cite—that steering competition can cause a record company to agree to lower rates in order to *protect* play share. 8/18/20 2650:2-9 (Shapiro).

Finally, although Professor Shapiro is correct that steering competition concerns incremental performances, his assertion that competition for incremental performances only affects marginal royalty rates is conclusory and unsupported.[4] [[redacted]]. *See e.g.*, Ex. 5415 at 1; Ex. 5221 at 5; Ex. 4026 at 1, 4; SX PFFCL ¶¶ 421, 442-43. [[redacted]]. Ex. 5520 at 2; 9/3/20 Tr. 5504:7-5505:23 (Adadevoh). And, most importantly, the record confirms that [[redacted]]. SX PFFCL ¶¶ 398-404, 434, 436, 448-54. At trial, Professor Shapiro acknowledged that [[redacted]]. 8/20/20 Tr. 3042:9-3044:11 (Shapiro).

Response to ¶ 18. The proposed finding is not informative. The existence of intense competition for placement on and positioning within playlists can be consistent with rates that are effectively competitive or supracompetitive. The critical question is whether and how that competition informs negotiation over royalty rates. As set out elsewhere in these findings, the testimony of marketing personnel indicates that [[redacted]] Moreover, although record

[4] It is also irrelevant. Even where steering-based discounts are applied only to incremental revenue, the discounts can dramatically reduce the average royalty rate paid by a service. *See, e.g.*, Ex. 5461 at 7, 35.

companies engage in fierce competition for placement on and within Spotify playlists, [[redacted]]. Finally, while record companies also engage in fierce competition over other on- and off-platform marketing opportunities that can affect their market share, [[redacted]]. *See infra* Resp. to ¶ 159.

These facets of competition for placement and position on Spotify playlists, and for other marketing and promotional opportunities [[redacted]]. In other words, these facets of competition for playlists illustrate Spotify's considerable ability to steer and [[redacted]].

II. SOUNDEXCHANGE'S RATE PROPOSAL SHOULD BE ADOPTED

A. Mr. Orszag's Benchmark Approach Is Reliable and Consistent With Prior Precedent From *Web III*, *Web IV*, and *SDARS III*

i. Mr. Orszag Has Addressed the Issues that Caused the Judges in *Web IV* to Reject the Use of a Subscription Interactive Service Benchmark for Ad-Supported Statutory Services

Response to ¶ 19. In his *Web IV* analysis, Professor Rubinfeld did not separately account for, or even consider, the willingness to pay of downstream users of ad-supported services. *See Web IV*, 81 Fed. Reg. at 26345; Ex. 5602 ¶¶ 88-90 (Orszag WDT). Mr. Orszag's analysis differs from that of Professor Rubinfeld in that Mr. Orszag expressly considered the willingness to pay in the downstream market for ad-supported services. Ex. 5602 ¶¶ 88-90 (Orszag WDT). Thus, Mr.

Orszag fixed the problem that caused the Judges to reject subscription interactive services as a benchmark for ad-supported noninteractive services in *Web IV*. *Id.* at ¶ 88.

Far from "co-opting" the ratio equivalency model, Mr. Orszag faithfully applied it, as even Professor Shapiro admitted at trial. 8/20/20 Tr. 3018:24-3019:5 (Shapiro) (conceding that Mr. Orszag followed the ratio equivalency methodology described in *SDARS III*).

Response to ¶ 20. SoundExchange agrees that Mr. Orszag used as an input to his ratio equivalency analysis for ad-supported services the advertising revenue earned by those services. 8/13/20 Tr. 1930:21-25 (Orszag). Because the demand for sound recordings by an ad-supported service is derived from the advertising revenue it can earn in the downstream market (just as demand by a subscription service is derived from the subscription revenue it can earn in the downstream market), using downstream revenue as an input for the ratio equivalency analysis allowed Mr. Orszag to appropriately adjust for the value of interactivity to the service. 8/11/20 Tr. 1243:24-1246:3 (Orszag); 8/19/20 Tr. 2976:20-24 (Shapiro) ([[redacted]]).

1. Mr. Orszag Correctly Applied the *Web IV* Ratio Equivalency Methodology

Response to ¶ 21. In an effort to bolster their argument that ratio equivalency analysis must begin and end with per-play rates, the Services re-write the *Web IV* determination. The Services claim that input [B] to the ratio equivalency equation is "the average per-performance royalty rate paid by subscription interactive services", and [D] is "the per-performance rate for noninteractive subscription services." But the *Web IV* determination describes input [B] as the "Interactive Subscriber Royalty Rate;" it does not say "per-performance" rate. Likewise the *Web IV* determination describes [D] as the "Noninteractive Subscriber Royalty Rate." Again, the definition of [D] includes no mention by the Judges of a "per-performance" rate. *Web IV*, 81 Fed. Reg. at 26338. Similarly, in *SDARS III,* the Judges described the relevant inputs as the "Royalty Payment (in $) in Benchmark Market," the "Royalty Payment (in $) in Target Market," the "Downstream Revenue (in $) in Benchmark Market," and the "Downstream Revenue (in $) in Target Market," *SDARS III*, 84 Fed. Reg. at 65244, with no suggestion that these inputs must expressed as a per-play rates.

Response to ¶ 22. The statement that Mr. Orszag used the total revenue and total royalties in the benchmark subscription market for his [A] and [B] inputs is true but irrelevant. As Mr. Orszag explained, the ratio equivalency equation holds that the ratio of A/B will equal the ratio of C/D. *Web IV*, 81 Fed. Reg. at 26337-38. The ratio of A/B will be mathematically identical whether one uses total revenues and total royalties, per-subscriber revenues and per-subscriber royalties, or per-play revenues and per-play royalties. 8/11/20 Tr. 1226:14-1227:10 (Orszag). For example, if total revenues were $1,000 and total royalties were $500, the ratio would be 2:1. If the service has 100 subscribers, it would be earning $10 per subscriber and paying $5 per subscriber in royalties, and the same 2:1 ratio would result. If the service averaged 10,000 plays per month, it would be earning revenue of $0.1 per play and paying royalties of $.05 per play, and the same 2:1 ratio would result. Thus, the Services have made a meaningless point because, mathematically, it does not matter whether the ratio of [A]/[B] is calculated using revenue per play and royalty per play, revenue per subscriber and royalty per subscriber, or total revenue and total royalty. 8/11/20 Tr. 1226:14-1227:10 (Orszag).

Response to ¶ 23. The Services make the same meaningless point as in the prior paragraph. It is true that Mr. Orszag first derived a total royalty payment for the noninteractive services and then divided that total royalty payment by total noninteractive service plays to derive a per-play rate. But, as Mr. Orszag explained, he could have done it the other way around, with precisely the same result. Mr. Orszag could have first divided total noninteractive service revenue by total noninteractive service plays to derive a revenue-per-play figure to use as his value for [C], and then adjusted that revenue-per-play figure by the ratio of [A]/[B] from the interactive market. 8/11/20 Tr. 1230:24-1231:13 (Orszag). The Services' insistence that Mr. Orszag had to start with revenue per-play as the value for [C] is a foolish formalism.

Response to ¶ 24. SoundExchange agrees that Mr. Orszag's "model is set up to ensure that the target market services pay the same *percentage of revenue* royalty rate as the benchmark services" (emphasis in original). That is not a flaw. Rather, it is the virtue of Mr. Orszag's approach, as the Services would know if they had read *Web III*, *Web IV*, or *SDARS III*.

In *Web III*, Dr. Michael Pelcovits presented SoundExchange's benchmark analysis based on the interactive services market. The Judges quoted Dr. Pelcovits' description of his interactivity adjustment as follows: "Dr. Pelcovits testified, 'it is reasonable to predict that the ratio of per-subscriber royalty fees to consumer subscription prices will be essentially the same in both the benchmark and target markets." *Web III Remand*, 79 Fed. Reg. at 23115. In other words (given that a percentage is just another way of expressing a ratio), Dr. Pelcovits posited that benchmark and target market services will pay the same effective percentage of their revenue. Dr. Pelcovits made his interactivity adjustment on that basis. Although the Judges questioned certain aspects of his benchmark analysis,[5] they did not take issue with Dr. Pelcovits on this point. *Id.* at 23119.

In *Web IV*, according to the Judges, Professor Rubinfeld followed the lead of Dr. Pelcovits: "This 'ratio equivalency' assumption in Dr. Rubinfeld's model is essentially the same as the

[5] Specifically, the Judges expressed concern that: (1) Dr. Pelcovits did not include in his analysis any agreements between Indies and on-demand services; (2) his adjustment for intensity of use was based on insufficiently reliable data; and (3) although Dr. Pelcovits was proposing a unitary rate for subscription and ad-supported services, his benchmark analysis did not include advertising revenue from on-demand services. *Id.* at 23118.

assumption made by Dr. Pelcovits on behalf of SoundExchange in *Web II* and *Web III*." *Web IV*, 81 Fed. Reg. at 26338 n.82. It is evident from the Judges' description of Professor Rubinfeld's analysis that, just as in *Web III*, ratio equivalency was intended to result in rates that produced the same effective percentage of revenue payment in the benchmark and target markets. According to the Judges, Professor Rubinfeld:

> was able to calculate that the direct agreements with the interactive services provided record companies with a minimum revenue share that generally ranged between 50 percent and 60 percent of the services' revenues . . . with the majority falling between 55 percent and 60 percent. Thus, given Dr. Rubinfeld's assumption that the ratios should be equal in both markets, *the per-play royalty rate for the noninteractive service [D] (i.e., the statutory rate) would also have to provide record companies with the same minimum percentage of revenue out of [C] (the average monthly retail noninteractive subscription price).*

Web IV, 81 Fed. Reg. at 26338 (emphasis added) (internal citation omitted); *see also id.* at 26326 ("Dr. Rubinfeld indicated that his 'ratio equivalency' per-play methodology resulted in a per-play royalty payment that approximated 55% of service revenue").

Further confirming that the interactivity adjustment was intended to set rates that equalized the percentage of revenue paid by services in benchmark and target markets, the Judges described Professor Rubinfeld's interactivity adjustment as follows: "[A]ll else equal, the interactivity adjustment sets statutory rates that represent the same fraction of subscription prices as paid by the on-demand services." *Id.* at 26344 (quoting Rubinfeld CWRT).

The fact that Professor Rubinfeld in *Web IV* chose to apply ratio equivalency by adjusting per-play rates is of no moment—his goal was to set per-play rates in the target market at a level that would yield the same effective percentage of revenue paid in the benchmark market. *Id.* at 26338. That is exactly what Mr. Orszag did—as the Services admit—and exactly what Professor Shapiro and Dr. Peterson failed to do.

Lest there be any doubt on this score, in *SDARS III* the Judges described the concept of ratio equivalency that they applied in *Web IV* in this way: "In *Web IV*, the Judges stated that the ratio equivalency concept 'assume[s] equality between two ratios: (1) subscription revenues to royalties in the interactive market; and (2) subscription revenues to royalties in the noninteractive market.'" *SDARS III*, 83 Fed. Reg. at 65243 n.137. *Professor Shapiro admitted that Mr. Orszag's analysis applied the ratio equivalency concept as expressed by the Judges in SDARS III. See* 8/20/20 Tr. 3017:12-3019:5 (Shapiro).

The Services' claim that in *Web IV* the Judges rejected consideration of the percentage of revenue paid by services in connection with the concept of ratio equivalency is misleading and wrong. The Services rely on language concerning evaluation of SoundExchange's proposal that the Judges adopt a "greater-of" rate formula containing both a per-play and percentage of revenue metric. To resolve that issue, the Judges rejected the "greater-of" approach and opted for the per-play prong of the proposed "greater-of" formula because the record in that case persuaded the Judges that percentage of revenue rates were rarely used. *Web IV*, 81 Fed. Reg. at 26325 ("The Judges first note that none of the percentage-of-revenue prongs in the greater-of agreements in the record has been triggered, which may suggest that the parties to those agreements viewed the per-play rate as the rate term that would most likely apply for the length of the agreement."). That discussion, and material cited by the Services, has nothing to do with ratio equivalency and does not in any way bear on how to implement ratio equivalency. Even if the two discussions were linked (they aren't), [[redacted]]. 8/11/20 Tr. 1207:12-18 (Orszag); 8/20/20 Tr. 3000:13-21 (Shapiro).

2. Mr. Orszag's Methodology Satisfies the Criteria for Ratio Equivalency Established in *Web IV*

Response to ¶ 25. The Judges in *Web IV* declined to use subscription interactive services as a benchmark to set the rates for ad-supported noninteractive services because Professor Rubinfeld did not separately take into account in his analysis the willingness to pay of downstream users of ad-supported services. Mr. Orszag's analysis differs from that of Professor Rubinfeld in that Mr. Orszag expressly considered the willingness to pay in the downstream market for ad-supported services. Ex. 5602 ¶¶ 88-90 (Orszag WDT).

Response to ¶ 26. SoundExchange agrees with Dr. Leonard that "the relationship between revenue generation and interactivity is substantially different" for ad-supported and subscription services. Ex. 2160 ¶ 54 (Leonard CWRT). [[redacted]]. *See* 8/19/20 Tr. 2975:2-9 (Shapiro) ([[redacted]]). This was a major error by Professor Shapiro. Mr. Orszag avoided this error by using for his ratio equivalency calculation the revenue earned by ad-supported services. To the extent that revenue generation is different in the ad-supported market, and to the extent that ad-supported services therefore earn relatively less on a per-user or per-play basis, Mr. Orszag's analysis accounts for this fact. Ex. 5602 ¶¶ 88-90 (Orszag WDT).

Response to ¶ 27. SoundExchange agrees that revenue earned by an ad-supported service depends on the willingness of advertisers to pay for ads and the willingness of consumers to listen to those ads. But that is only the beginning of the analysis. Although subscription and ad-supported services generate revenue in different ways, both ultimately "put real dollars in the pockets of the services." Ex. 5602 ¶ 90 (Orszag WDT). Consequently, as [[redacted]

[redacted]]. 8/19/20 Tr. 2976:20-24 (Shapiro). There is no reason to think that a dollar of subscription revenue and a dollar of advertising revenue have any different impact on a service's willingness to pay for music. If interactivity increased the advertising dollars that an ad-supported service could earn, a rational service would pay for that value. If interactivity did not increase the advertising dollars the service could earn, a rational service would not pay more to license interactive functionality. Professor Shapiro [[redacted]], 8/19/20 Tr. 2977:13-2978:23 (Shapiro), or, alternatively, [[redacted]]. 8/19/20 Tr. 2977:13-2978:23, 2979:2-2980:7 (Shapiro). In short, a service's demand for music is derived from the dollars it can earn in the downstream market, and whether those are from subscriptions or advertisements is of no moment. Thus, Mr. Orszag measured the value of interactivity based on the dollars earned in the downstream market regardless of source. Ex. 5602 ¶ 90 (Orszag WDT).

The argument that revenue earned by ad-supported services is generated by the services' investment and skill should be disregarded. It ignores the investment and skill of the record companies and artists who create the sound recordings that are a necessary input for the service. *See, e.g.*, *SDARS III*, 83 Fed. Reg. at 65254, 65258 (describing the "specific risky and costly investments incurred to sign artists, create and produce recordings, manufacture product, market and distribute the music, build an audience and fan base, and license the copyrighted content to services such as Sirius XM for listening by end users"); Ex. 5618 ¶¶ 18-45 (Gallien WDT). No business will advertise on a service that has no music and therefore no listeners. And the Services offer no reason why they should profit from the investments and talents of record companies and artists, while claiming as wholly their own the benefit of any investments the services make. [[redacted]] 8/11/20 Tr. 1207:12-18, 1208:10-15, 1379:23-1380:10 (Orszag); 8/20/20 Tr. 3000:13-21 (Shapiro). Consequently, to the extent that services invest to increase revenue, the marketplace evidence indisputably proves that [[redacted]]

Response to ¶ 28. For reasons discussed in its Response to ¶ 27, *supra*, SoundExchange disagrees. Because [[redacted]], *see* 8/19/20 Tr. 2976:20-2978:23 (Shapiro), applying a percentage of revenue metric to downstream revenue adjusts for interactivity. For reasons also discussed in Response to ¶ 27, there is nothing unfair about record companies and artists sharing in revenues that may be enhanced through investments by services, just as there is nothing unfair about the services profiting from the investments and talents of record companies and artists. Moreover, [[redacted]]. *See infra* Resp. to ¶ 44.

Response to ¶ 29. The contention that applying Mr. Orszag's benchmark percentage of revenue rate to Pandora will result in per-play rates higher than those calculated if the same percentage of revenue were applied to other services misses the mark on many levels.

First, the Judges have repeatedly observed that rates need not be set to support particular business models. *SDARS III*, 83 Fed. Reg. at 65255, 65259; *Web IV*, 81 Fed. Reg. at 26329. As the Judges observed in *Web III* in words that squarely address the Services' current argument, "[a] single price established in any market by its very nature inevitably will restrict some purchasers who are unable or unwilling to pay the market price." *Web III Remand,* 79 Fed. Reg. at 23119.

Second, Pandora is far and away the largest service in the noninteractive ad-supported market, with [[redacted]] times the streams of iHeart or Google. 8/25/20 Tr. 3835:15-19 (Orszag). Setting a rate discounted below what Pandora can pay would provide a windfall to the largest buyer in the market, at the expense of record companies and artists, and makes little economic sense.

Third, Professor Shapiro used Pandora as his proxy for the ad-supported noninteractive market in his modeling analysis. As Mr. Orszag pointed out, it makes little sense to suggest Pandora is a good proxy for some purposes but not others. 8/25/20 Tr. 3834:25-3835:9 (Orszag).

Finally, other services may use sound recordings to generate value in ways not captured by advertising revenue. Services may bundle music streaming with sales of smart speakers, as Google does. *See* Ex. 1100 ¶¶ 19-22 (Fowler WDT). They may offer internet streams as a way to fend off intrusion by webcasters into another market, as some radio broadcasters do. *See* Ex. 2157 ¶ 26 (Wheeler WDT) (without simulcasting Wheeler feared it would "eventually lose listeners as they increasingly sought to listen to content digitally"). Simply applying a percentage of revenue metric to the advertising revenues of such buyers in the ad-supported market would not capture the value that they derive from the use of sound recordings. Indeed, the virtue of using Pandora as a proxy is that Pandora creates value in an easily measured way—though advertising revenue.

Response to ¶ 30. Leaving aside non-evidentiary editorial comments, SoundExchange agrees that the Judges reached the general conclusions described in this paragraph.

Response to ¶ 31. Mr. Orszag did explain why use of the subscription interactive services makes sense based on the record in this case. To the extent services have entered licenses with the record companies covering multiple tiers of service, the percentage of revenue rates are [[redacted]

[redacted]]. Ex. 5602 ¶ 80 (Orszag WDT). In particular, the [[redacted]]. As Mr. Orszag explained, this suggests that, under the Lerner Index, the elasticities of demand are very similar. 8/25/20 Tr. 3809:13-3810:4 (Orszag) ([[redacted]]); 8/13/20 Tr. 1933:24-1934:21, 1936:4-16 (Orszag). In this regard, the Services' reference to the shape of the demand curve is a red herring. Mr. Orszag testified (without contradiction) that it is where one ends up on the curve that matters, not the shape of it. 8/12/20 Tr. 1548:23-1549:10 (Orszag).

Response to ¶ 32. The record in this case compels a different outcome than the record in *Web IV*. Dr. Rubinfeld's ad-supported benchmarking analysis made an assumption regarding willingness to pay. Mr. Orszag addresses that error. Rather than assuming equivalent ability to pay for the subscription and ad-supported markets, Mr. Orszag's analysis reflects actual willingness to pay in both markets. For the ad-supported market, he was able to do that because consumers' willingness to pay is reflected in their willingness to listen to advertising, 8/11/20 Tr. 1240:21-1241:7 (Orszag), which translates into advertising revenue for the service. 8/11/20 Tr. 1243:24-1244:11 (Orszag). The advertising dollars in turn relate to the service's willingness to pay. 8/11/20 Tr. 1245:21-1246:3 (Orszag). Thus, Mr. Orszag used the advertising dollars earned by the service as the estimate of willingness to pay. 8/11/20 Tr. 1241:23-1242:14 (Orszag). Consequently, Mr. Orszag's analysis, unlike Professor Rubinfeld's, produces different rates for the ad-supported and subscription markets.

The Services do not dispute that users of ad-supported services have willingness to pay, and pay through time spent listening to advertisements. Nor could they. If it were true that ad-supported service *users* have zero willingness to pay, then ad-supported *services* themselves would have zero willingness to pay, which plainly is not the case. Ex. 5602 ¶ 90 (Orszag WDT). Moreover, the "sharp dichotomy" in willingness to pay that the Judges saw in the *Web IV* record manifestly no longer exists. In addition to the undisputed evidence that consumers manifest willingness to pay through advertisements, the record demonstrates that a substantial and increasing number of consumers are moving to subscription formats, as evidenced by the explosive growth of subscription interactive services. *Id.* at ¶¶ 121-24.

Response to ¶ 33. Mr. Orszag indeed agreed that users of ad-supported services have a willingness to pay different from those who pay for subscription interactive services. But the conclusions that the Services attempt to draw from this fact do not withstand scrutiny.

It is the Services, and not Mr. Orszag, that miss the point. No one suggests, nor would it make any sense to suggest, that interactive services and noninteractive services offer the same functionality, or that consumers would pay $10 per month for an interactive service if they did not value its functionality more than the functionality of a less expensive noninteractive service. As Mr. Orszag explained, that is precisely why he adjusts his benchmark rates for the value of interactivity. If the users of interactive and noninteractive services had the same willingness to pay, then there would be no interactivity adjustment. 8/12/20 Tr. 1552:5-13 (Orszag) ("Of course. And that's why the rates I propose are different. If they had similar willingness to pay, then presumably the answer would come out identical"); *see also* 8/13/20 Tr. 1936:20-1937:7 (Orszag) ("I'm adjusting for that difference in my calculation.").

The Services argue that there remains some distinction between interactive and noninteractive services with respect their functionality and how much consumers use lean-forward or lean-back features. However, the Services only discuss the market as it exists today. They do not contest that the market has changed since the record was developed in *Web IV*, including in the ways that Mr. Orszag identified in his written testimony. *See* Ex. 5602 ¶¶ 57-71 (Orszag WDT). Ultimately, Mr. Orszag argues that the distinction between interactive and noninteractive services has *eroded*, and all the Services can do in response is argue that the distinction between interactive and noninteractive services has not entirely *disappeared,* a contention Mr. Orszag never made. This convergence corroborates the conclusion that willingness to pay is also converging, because the type of lean-back listening associated with ad-supported services also is a large component of usage for consumers who subscribe to interactive services.

Response to ¶ 34. SoundExchange incorporates its responses to ¶¶ 31-32, *supra*.

Response to ¶ 35. Mr. Orszag explained that in competition analysis and under the Merger Guidelines, "who your customers churn to, regardless of the number, gives information about the degree of substitutability between the products." 8/13/20 Tr. 1943:20-1944:17 (Orszag). As Mr. Orszag further explained, "if product B is the reason why customers leave product A in the highest percentage, that makes B and A closer substitutes than if fewer people leave for product C, irregardless of the level of churn." 8/13/20 Tr. 1943:20-1944:17 (Orszag). No economist engaged by the Services disputed or rebutted this testimony. For this reason, it is a fact of some consequence (and a distinction between this case and *Web IV*) that Pandora's own documents show [[redacted]] Ex. 5602 ¶¶ 92-93 (Orszag WDT).

Response to ¶ 36. SoundExchange incorporates its Response to ¶ 33, *supra*. No one doubts that consumers pay more for interactive subscription services than services with less functionality, because they value on-demand functionality. That is why Mr. Orszag makes an interactivity adjustment. 8/12/20 Tr. 1552:5-13 (Orszag).

Response to ¶ 37. That services are to some degree substitutable is hardly economically irrelevant. *See Web IV*, Fed. Reg. at 26327-28 (considering degree of substitutability). Substitution between services is one fact that an economist should consider in evaluating elasticity, though not the only fact. 8/13/20 Tr. 1943:20-1944:17 (Orszag). Moreover, the Services make the same mistake in this paragraph as they made in previous paragraphs. Of course, individuals who buy a $9.99 subscription have a greater willingness to pay than those who buy a $4.99 subscription, or those who pay with their time listening to ads. But that is what we are adjusting for. 8/12/20 Tr. 1552:5-13 (Orszag); *accord* Resp. to ¶ 33.

Response to ¶ 38. The 20% diversion ratio revealed by the Hanssens survey, or the somewhat lower figure from the Zauberman survey, represent substantial diversion from an economic perspective. The Judges in *Web IV* spoke of diversion in terms of dollars. *Web IV*, 81 Fed. Reg. at 26344. When one considers that a single $9.99 subscription diverted from subscription interactive services is [[redacted]].[6]

Response to ¶ 39. SoundExchange incorporates its responses to ¶¶ 30-38, *supra*.

Response to ¶ 40. Mr. Orszag is not making a [[redacted]] Nor is Mr. Orszag making a [[redacted]]. In both cases, Mr. Orszag states a proven, undisputed, fact. *See* 8/25/20 Tr. 3809:13-3810:4 (Orszag); SX PFFCL ¶ 219; *accord id.* at ¶ 154.

[6] The Hauser survey provides no probative evidence about switching patterns for simulcast listeners. *See* SX PFFCL ¶¶ 1208-69. Moreover, SoundExchange addresses the meritless criticism of the Zauberman survey below. *Infra* Resp. to ¶¶ 287-302.

Response to ¶ 41. Mr. Orszag correctly infers comparable elasticities from the fact that [[redacted]] 8/25/20 Tr. 3809:13-3810:4 (Orszag); 8/13/20 Tr. 1933:24-1934:21, 1936:4-16 (Orszag). The Services' claim—[[redacted]]—is factually incorrect, which explains the absence of any supporting citation to the record. The rates for the ad-supported tier of Spotify and the subscription tier of Spotify [[redacted]]. 9/3/20 Tr. 5716:16-5717:23 (Harrison).

Obviously, statutory services have not agreed to pay any particular percentage of revenue because they operate under the statutory license. This is a red herring. What the Services ignore is that their own experts, Dr. Peterson and Professor Shapiro, use [[redacted]] as a benchmark for statutory ad-supported services, and Professor Shapiro purports to apply the ratio equivalency concept to adjust for functional differences between the two. In order to do this, it has to be the case that Professor Shapiro believes that elasticities of demand are essentially the same for his benchmark market ([[redacted]]) and noninteractive services. That being the case, it is relevant to show that the elasticities of demand are similar across all the platforms. [[redacted]], and Professor Shapiro assumes for the purposes of his benchmarking that ad-supported interactive and noninteractive services likewise have similar elasticities of demand. This explains why, in the marketplace, [[redacted]

[redacted]], Ex. 5602 ¶ 80 (Orszag WDT), and it is therefore reasonable to assume similar demand elasticities.

Response to ¶ 42. SoundExchange incorporates its response to ¶ 41, *supra*. As Mr. Orszag pointed out, he does not demonstrate that the revenue per play for an interactive subscription service and a noninteractive ad-supported service is the same because he "wouldn't expect it to be the same because [he's] adjusting for that difference in [his] calculation" and therefore "it doesn't make much sense to do that." 8/13/20 Tr. 1936:20-1937:7 (Orszag).

Response to ¶ 43. Dr. Peterson's argument is inapt with respect to Mr. Orszag's analysis, because Mr. Orszag does not rely on family and student plans in his benchmarking analysis. Ex. 5602 ¶ 83 (Orszag WDT). Moreover, Dr. Peterson's discussion relates to demand elasticities between customer types (*e.g.*, student vs. individual) within the same service. He fails to consider that there may be pricing strategies for a discounted plan, such as student plans, that do not follow a textbook elasticity rule, including relative to individual plans. For example, Dr. Peterson has not considered that [[redacted]].

3. Mr. Orszag's Use of Percentage of Revenue Rates Is Consistent with the Current Marketplace and the Rationale Embraced by the Judges in *Web IV*

Response to ¶ 44. There is no question that in today's market, [[redacted]]. 8/11/20 Tr. 1207:12-18, 1208:10-15, 1379:23-1380:10 (Orszag); *see also* 8/20/20 Tr. 3000:13-21 (Shapiro) ([[redacted]]).

[[redacted]], when they "note[d] that none of the percentage-of-revenue prongs in the greater-of agreements in the record has been triggered, which may suggest that the parties to those agreements viewed the per-play rate as the rate term that would most likely apply for the length of the agreement."[7] *Web IV*, 81 Fed. Reg. at 26325. While Mr. Orszag would have been justified in relying on the *Web IV* determination, he also reviewed agreements with on-demand services dating back to 2011 that are in the record in this case (*see, e.g.*, Exs. 2061, 5025, 5078, 5081, 5128, and 5130), and Mr. Orszag testified about how these agreements [[redacted]] (supplying the evidence the Services claim is missing). 8/11/20 Tr. 1233:24-1234:15 (Orszag). [[redacted]], which the Services do their best to ignore, Mr. Orszag's approach is consistent with the way willing buyers and willing sellers approach transactions today, while [[redacted]].

Response to ¶ 45. The Services apparently recognize the damage that Professor Shapiro did to their case when, on cross-examination, he admitted that Mr. Orszag followed ratio equivalency as described by the Judges in *SDARS III.* In particular, the Judges stated that the ratio equivalency concept "assume[s] equality between two ratios: (1) subscription revenues to royalties in the interactive market; and (2) subscription revenues to royalties in the noninteractive market." *SDARS III*, 83 Fed. Reg. at 65243 n.137. Professor Shapiro was shown this excerpt, and the following questions and answers ensued:

> Q. So first question is, do you agree with that description of ratio equivalency? Is that how you would think of it?

[7] The fact that, [[redacted]] the basic conclusion that the record in *Web IV* established that per-play rates were the more common metric at the time.

A. Yes, I think that's how they define it.

Q. Okay. And I think we just agreed that's how Mr. Orszag applied it, right?

A. I think so.

8/20/20 Tr. 3018:24-3019:5 (Shapiro). In short, Professor Shapiro agreed that the quoted excerpt from *SDARS III* reflects how the Judges define ratio equivalency, and further agreed that Mr. Orszag applied that definition.

In an effort to escape the implications of Professor Shapiro's admission, the Services argue that the *SDARS III* description of ratio equivalency somehow departed from *Web IV*. JPFFCL ¶ 45 ("[T]here is no indication *whatsoever* that the *SDARS III* determination (much less a single sentence in a footnote) was intended to rewrite or expand *Web IV*"). This is just wrong. The Judges in *SDARS III* were not rewriting or departing from *Web IV*. They were *describing* the *Web IV* decision. That much is clear to even the most casual reader. The relevant sentence of the *SDARS III* Determination begins: "*In Web IV, the Judges stated* . . . ." and then concludes by citing the relevant pages of *Web IV*. *SDARS III*, 83 Fed. Reg. at 65243 n.137 (emphasis added).

Moreover, as we discussed above, ratio equivalency has *always* been understood to mean that the ratio of revenues to royalties in the interactive market is equal to the ratio of revenues to royalties in the noninteractive market—*i.e.* the percentages of revenue paid in royalties will be equal in both markets. *Supra* Resp. to ¶ 24. That is how Dr. Pelcovits described the concept in *Web III*. *See Web III Remand*, 79 Fed. Reg. at 23119. It is how Professor Rubinfeld implemented the concept in *Web IV*, where he made clear that his proposed per-play royalty rate for statutory services was intended to equal the effective percentage of revenue earned in the benchmark market. *Web IV*, 81 Fed. Reg. at 26338. This consistent and long-standing definition of ratio equivalency, most recently articulated in *SDARS III*, precisely reflects how Mr. Orszag understood ratio equivalency and how he applied it in this case. We respond to the Services' claim that *SDARS III* rejected Mr. Orszag's attempt to extend ratio equivalency to Sirius XM in response to ¶ 46, *infra*.

Response to ¶ 46. The Judges in *SDARS III* were not willing to use interactive services as a benchmark for Sirius XM's satellite radio service. But that does not mean that the Judges rejected Mr. Orszag's understanding of ratio equivalency—they did nothing of the kind. Nor do the Services cite to any part of the Determination making such a ruling.

To be clear, the Services raise two distinct issues with respect to Mr. Orszag's benchmark analysis for the ad-supported noninteractive market. The first issue is whether the subscription interactive market is sufficiently comparable to the ad-supported noninteractive market to allow the use of ratio equivalency to adjust for differences between the two. The second and distinct issue relates to how one applies the ratio equivalency concept, assuming it is applicable. Having raised these two different issues, the Services persistently conflate them. The Services here purport to address the *second* issue—how one applies ratio equivalency and whether ratio equivalency analysis necessarily requires use of per-play rates—when in fact the Services' discussion of *SDARS III* relates to the *first* issue. In *SDARS III*, the Judges determined that the satellite radio market and the interactive streaming market were not sufficiently comparable to warrant use of the interactive services as a benchmark. *See SDARS III*, 83 Fed. Reg. at 65247-48. The Judges' conclusion that interactive streaming is not sufficiently comparable to satellite radio to serve as a benchmark, however, says nothing about whether subscription interactive streaming may serve as a useful benchmark for ad-supported non-interactive streaming—a subject already discussed. *See supra* Resp. to ¶¶ 25-43; *see also* SX PFFCL ¶¶ 157-71, 212-23. And the Judges' determination did not at all address Mr. Orszag's views on how to apply ratio equivalency.

Response to ¶ 47. The Services' attempts to suggest that ratio equivalency logically must start with per-play rates do not withstand scrutiny.

First, Professor Shapiro agreed that there is no economic reason why one must start with per-play rates. He did so only because, in his view, that was the approach used by Professor Rubinfeld in *Web IV*. But contrary to what the Services imply in this paragraph, no economic theory compels this conclusion. Professor Shapiro admitted as much, conceding that he does not believe that starting the analysis with the per-play rates in the benchmark market is the only benchmarking method that is reasonable or sensible. 8/20/20 Tr. 3000:6-12 (Shapiro).

Second, converting to a per-play rate at the end of the analysis, instead of the beginning, is not "roundabout." In fact, and notwithstanding Professor Shapiro's *ipse dixit*, Mr. Orszag's approach is more straightforward. Consider the skips adjustment. Mr. Orszag took skips into account in a straightforward way: By dividing the total royalties owed by the total plays in the noninteractive market. [[redacted]] Although it took Professor Shapiro time to figure that out, he eventually did and admitted that Mr. Orszag was right. 8/20/20 Tr. 3025:3-8 (Shapiro). Mr. Orszag's approach therefore resulted in a skips adjustment that no one challenges, conceptually or in execution. On the other hand, Professor Shapiro and Dr. Peterson are compelled to make complicated skips adjustments that are based on different approaches, produce materially inconsistent results, and rely on unreliable data. The reasons why each approach is flawed are explained elsewhere. SX PFFCL ¶¶ 240-48. However, for present purposes, it should be clear that beginning with per-play rates complicates, rather than simplifies, the benchmarking analysis.

The same holds true for the interactivity adjustment. Mr. Orszag simply applies the ratio equivalency concept, consistent with its underlying premise that the ratio of revenue to royalty should be the same in the benchmark and target markets. Professor Shapiro and Dr. Peterson, on the other hand, ignore the revenue that is earned by the target services in the downstream market. In doing so, they remove from consideration any relationship between interactive functionality and its value to downstream users. Not only is this contrary to the concept of ratio equivalency, as it has been consistently defined by the Judges, *see SDARS III*, 83 Fed. Reg. at 65243 n.137, but it leaves Professor Shapiro and Dr. Peterson floundering in search of other approaches. Predictably, they come up with competing approaches that yield wildly different results: a 63% adjustment for Professor Shapiro and a 12.7% adjustment for Dr. Peterson. 8/11/20 Tr. 1187:5-14 (Orszag).

Finally, while Professor Shapiro may believe that per-play rates are the "better metric" for the value created, he has never explained (in any coherent way) why that is so. In any event, Professor Shapiro's theories are entirely inconsistent with marketplace realities. [[redacted]], *supra* Resp. to ¶ 44, [[redacted]] 8/11/20 Tr. 1207:12-18, 1208:10-15 (Orszag). [[redacted]]. 8/11/20 Tr. 1379:23-1380:10 (Orszag). When using a benchmarking approach—the virtue of which is that it is based on actual marketplace transactions—it makes no sense to ignore undisputed evidence market-based evidence that [[redacted]].

4. Employing Spotify Free Tier Rates as a Benchmark Produces Results Very Close to Mr. Orszag's Proposed Rates

Response to ¶ 48. The Services are generally correct that Mr. Orszag did not, in his written direct testimony, opine that Spotify's ad-supported service was a good benchmark, due to the fact that the service is universally acknowledged to be very successful at converting users to the subscription service and pays discounted royalty rates as a result. *See* 8/10/20 Tr. 1160:3-7 (Orszag). As Mr. Orszag explained, however, a proposed benchmark market is by definition going to be different than the target market, and the relevant question becomes whether methods exist to adjust for the differences between the two. 8/10/20 Tr. 1158:5-14 (Orszag). [[redacted]]. 8/19/20 Tr. 2970:18-25 (Shapiro) ([[redacted]]). With that, Mr. Orszag became more comfortable with use of Spotify's ad-supported service as a benchmark.

Moreover, it is correct that [[redacted]]. 8/12/20 Tr. 1560:6-1561:2 (Orszag). Substituting the lower percentage of revenue rate in Mr. Orszag's analysis [[redacted]]. 8/12/20 Tr. 1553:16-24, 1560:6-1561:2 (Orszag).

What these facts throw into sharp relief is that the Services waste a considerable quantity of ink attacking Mr. Orszag's use of Spotify's subscription service as a benchmark for noninteractive ad-supported services. Substituting the appropriately adjusted benchmark [[redacted]]—Spotify's ad-supported service—makes no difference in the outcome so long as the Judges apply ratio equivalency as they have defined it in the past: "equality between two ratios: (1) subscription revenues to royalties in the interactive market; and (2) subscription revenues to royalties in the noninteractive market." *SDARS III*, 83 Fed. Reg. at 65243 n.137.

Response to ¶ 49. The only thing "misleading and false" in this proposed finding is the Services' claim that calculations performed by Professor Shapiro and Dr. Peterson are entirely divorced from [[redacted]]

[redacted]]. As the Services state, Dr. Peterson and Professor Shapiro calculated effective per-play rates by dividing total royalties by total plays. But the Services conveniently ignore the fact that total royalties, in turn, are a function of [[redacted]]. 8/11/20 Tr. 1379:23-1380:10 (Orszag) ([[redacted]]). Thus, it is flatly wrong to say that the [[redacted]] paid to the record companies "played no role" in the calculations of Professor Shapiro and Dr. Peterson. It seems that the Services misrepresent these facts because they want to construct an alternative universe in which the [[redacted]]

What *is* true is that neither Professor Shapiro nor Dr. Peterson use [[redacted]], 8/19/20 Tr. 2975:2-9 (Shapiro), [[redacted]]. Ex. 1103 ¶ 54 (Peterson AWDT). But this is not a good thing, since it is impossible to make the ratio of revenue to royalty in the target market equal the ratio of revenue to royalty in the benchmark market if one ignores the target market revenue.

Response to ¶ 50. The Services are correct that [[redacted]]. Whether and how those rates should be further adjusted is a matter of dispute. Mr. Orszag was quite clear on this point. During his trial testimony, Mr. Orszag observed that the real difference between him and the Services' economists is not [[redacted]]—the differences are "what should be your interactivity adjustment and what should be, if any, effective competition adjustment. And that's what defines the differences here. Everything else you're really at the same number." 8/25/20 Tr. 3836:13-25 (Orszag).

Response to ¶ 51. There is nothing misleading about Table 9. Mr. Orszag was quite clear in Paragraphs 82-84 of his written rebuttal testimony that his per-play rates were based on applying "Spotify's subscription service percentage-of-revenue rate" [[redacted]] Ex. 5603 ¶¶ 82-84 & n.181 (Orszag WRT).

Response to ¶ 52. Again, in their zeal to attack Mr. Orszag, the Services claim that the gross revenue for Spotify's ad-supported service and the percentage of revenue royalty rate it pays for that service played no role in [[redacted]]. *See supra* Resp. to ¶ 49.

Response to ¶ 53. SoundExchange agrees that Mr. Orszag's per-play rate represents his proposed rate for the target market, while the per-play rates for Professor Shapiro and Dr. Peterson represent their calculation of the effective per-play rates in the benchmark market, which they propose to adjust further.

Response to ¶ 54. The Services' attempt to discount the significance of [[redacted]] has no merit. The rates for the ad-supported tier of Spotify and the subscription tier of Spotify [[redacted]

[redacted]] 9/3/20 Tr. 5716:16-5717:14 (Harrison). Spotify, however, [[redacted]] 9/3/20 Tr. 5717:15-23 (Harrison); *accord* SX PFFCL ¶¶ 416, 426-27. Moreover, [[redacted]] represents the outcome of a marketplace transaction—it should not be dismissed or ignored. Indeed, it is impossible to ignore because, as much as the Services pretend otherwise, [[redacted]] whether or not they admit it. *See supra* Resp. to ¶ 49. [[redacted]].

It is even odder for the Services to dismiss the similarity between [[redacted]] as a "coincidence," as though marketplace outcomes are random events determined by chance. The revenue per play for each of these services is what it is because of demand in the downstream market. [[redacted]].

Oddest of all is the Services' statement that "[s]ubstituting the benchmark percentage rate from the Spotify ad-supported service is a circular shortcut that does not and cannot replace that required showing." What required showing? If by this sentence the Services mean that substituting the Spotify ad-supported service as the benchmark in place of the Spotify subscription service does not eliminate the need to show similar demand elasticities between the subscription service and the statutory ad-supported market, the sentence is a *non sequitur*. Obviously if one substitutes Spotify's ad-supported service as the benchmark service, no showing needs to be made concerning the subscription service because it is no longer the benchmark.

If instead the Services mean that some showing must be made to justify using the concept of ratio equivalency to adjust for functional differences between the Spotify ad-supported service and noninteractive ad-supported services, the Services apparently have forgotten that Professor Shapiro purported to do just that. [[redacted]]. And if the Services are not challenging the utility of the service as a benchmark, but rather challenging use of the ratio equivalency concept to adjust for the different functionality offered by their benchmark service and the target market, they are in effect challenging their own expert's interactivity adjustment. As his first such adjustment, Professor Shapiro adopted the same interactivity adjustment used in *Web IV*, *see* Ex. 4094 at 37 (Shapiro Second CWDT), and agreed that in doing so he was (in his view) following the ratio equivalency equation from *Web IV*. 8/19/20 Tr. 2930:5-2931:2 (Shapiro). If the Services truly mean that ratio equivalency cannot be used to adjust the Spotify ad-supported rates to account for interactivity, they will have to disavow Professor Shapiro's analysis.

In any event, as Dr. Peterson notes, [[redacted]]. 8/25/20 Tr. 3697:8-14 (Peterson). That problem does not exist when Spotify's ad-supported service is used as a benchmark for statutory ad-supported services, since in both cases consumers are paying in the same way—with time spent listening to advertisements. And with respect to advertisers, as Dr. Leonard pointed out, advertisers "would not be willing to pay more per impression for an ad on an interactive service than a non-interactive service (unless an interactive service attracts more valuable impressions than a non-interactive service, a proposition for which I have seen no evidence)." Ex. 2160 ¶ 54 (Leonard CWDT).

Response to ¶ 55. Mr. Orszag's analysis did not "wash out" an interactivity adjustment—he made an interactivity adjustment consistent with the concept of ratio equivalency articulated by the Judges. *See* SX PFFCL ¶¶ 167-71.

The Services claim that advertising revenue is not an appropriate or sufficient measure of the value of interactivity. That claim is contrary to Professor Shapiro's trial testimony. [[redacted]]. 8/19/20 Tr. 2975:23-2976:3 (Shapiro) ([[redacted]]). [[redacted]]. 8/19/20 Tr. 2976:20-24 (Shapiro). Professor Shapiro was then asked [[redacted]]. The entire exchange is worth quoting:

> [[redacted]

> [redacted]
>
> [redacted]
>
> [redacted]
>
> [redacted]
>
> [redacted]
>
> [redacted]
>
> [redacted]].

8/19/20 Tr. 2977:13-2979:10 (Shapiro) (emphasis added).

In short, contrary to the Services' representations, [[redacted]]. 8/19/20 Tr. 2981:7-14 (Shapiro) ([[redacted]]).

As SoundExchange demonstrated in its opening proposed findings of fact, [[redacted]]. SX PFFCL ¶¶ 219, 222. By any measure, therefore, interactivity adds little value for an ad-supported service—consumers do not listen to more ads and advertisers do not pay more per impression. The economic significance of these facts is clear. If a service's willingness to pay is derived from its ability to earn revenue in the downstream market (and Professor Shapiro agrees that is it), and [[redacted]], then interactivity has little or no value in the ad-supported market.

In the end, the Services impliedly argue that interactive functionality has intrinsic value quite apart from whatever contribution it might make to service revenues. The Services articulate no economic theory for this novel claim, and there is none. Indeed, Google's proposed findings explain why a small-to-nonexistent interactivity adjustment makes sense if Spotify's ad-supported service is used as the benchmark. According to Google, services pay more for interactive functionality because "consumers place value on that increased functionality" and "[a]ccordingly, licensee services can earn more revenue from interactive streaming than non-interactive streaming." Google PFFCL ¶ 30. [[redacted]]. *See* SX PFFCL ¶¶ 219, 222. [[redacted]]. On the seller side, Google continues, "interactive streaming carries a greater risk to the licensor labels of cannibalization of other distribution channels." Google PFFCL ¶ 30. [[redacted]

[redacted]]. Ex. 5609 ¶ 23 (Harrison WDT). In short, Google's explanation for why interactive functionality might be licensed at higher rates only shows [[redacted]], and little or no interactivity adjustment is needed if Spotify's ad-supported service is used as a benchmark in this case.

Finally, and somewhat ironically, the Services cite the testimony of Aaron Harrison for the proposition that [[redacted]]. 9/3/20 Tr. 5716:16-5717:23 (Harrison). In addition to confirming that [[redacted]].

Response to ¶ 56. SoundExchange disagrees for all of the reasons stated SoundExchange's Proposed Findings. *See* SX PFFCL ¶¶ 17-239.

ii. No Competition Adjustment Is Needed

Response to ¶ 57. SoundExchange incorporates its response to ¶ 7, *supra*.

Response to ¶ 58. The *Web IV* determination was based on a record developed years before any of the Benchmark Agreements were executed and without evidence about the circumstances

[8] To be clear, UMG [[redacted]]. SX PFFCL ¶¶ 416, 426-27 (addressing erroneous assertion that UMG [[redacted]]).

under which the Benchmark Agreements were negotiated.[9] SX PFFCL ¶ 262; *Web IV*, Docket No. 14-CRB-0001-WR (2016-2020).

Response to ¶ 59. The *Phonorecords III* determination and related D.C. Circuit decision were based on a record that did not contain the Benchmark Agreements, did not reflect [[redacted]]. SX PFFCL ¶ 262; *supra* Resp. to ¶ 58.

Response to ¶ 60. The *SDARS III* determination was based on a record that did not contain the Benchmark Agreements, did not reflect [[redacted]]. SX PFFCL ¶ 262; Resp. to ¶ 58; 8/13/20 Tr. 2073:25-2074:3 (Orszag). Moreover, benchmarking analyses in *SDARS III* required the Judges to consider the relative bargaining power between the major record companies and a wide range of interactive services. Mr. Orszag's benchmark in this case presents a much narrower question: Whether Spotify had enough relative bargaining power to negotiate Benchmark Agreements consistent with effective competition.

Response to ¶ 61. There is no dispute that the major record companies are must-have for interactive services *in the long-term*. Ex. 5602 ¶¶ 107, 115-16, 136 (Orszag WDT); 8/11/20 Tr. 1296:19-1297:21 (Orszag); 8/25/20 Tr. 3714:15-20 (Peterson) ([[redacted]]); *see also* 8/20/20 Tr. 3105:2-9 (Shapiro) (asserting that bargaining theory suggests economists should look to the long-term in event of sustained blackout).

[9] The Benchmark Agreement between Spotify and UMG [[redacted]], Ex. 5037 at 1, the Benchmark Agreement between Spotify and SME [[redacted]], Ex. 5011 at 11, the Benchmark Agreement between WMG and Spotify [[redacted]], Ex. 5038 at 24; Ex. 4025, and the Benchmark Agreement between Spotify and Merlin [[redacted]], Ex. 1067 at 1.

Response to ¶ 62. No competition adjustment is needed. Spotify's ability to influence record company market share on its platform, SX PFFCL ¶¶ 357-97, along with its financial and other importance to record companies, *id.* at ¶¶ 298-345, enabled Spotify to negotiate Benchmark Agreements consistent with effective competition. Because record companies [[redacted]], *id.* at ¶¶ 405-56, [[redacted]], *id.* at ¶¶ 398-404, [[redacted]]. 8/11/20 Tr. 1211:4-16 (Orszag); *see* Ex. 5602 ¶ 153, Table 15 (Orszag WDT).

1. There is Considerable Evidence That the [[redacted]]

Response to ¶ 63. The Services mischaracterize SoundExchange's position, which is that Spotify has sufficient relative bargaining power to negotiate effectively competitive rates with must-have record companies. SX PFFCL ¶¶ 259-486. Moreover, this finding should be stricken because it does not contain any citations to the hearing record or to legal authority, and is therefore non-compliant with 37 C.F.R. § 351.14(c) and the Judges' *Order Establishing Requirements for Post-Hearing Submissions* (hereinafter, "Order"). *See* Order at 1.

Response to ¶ 64. SoundExchange has presented considerable evidence, grounded firmly in past determinations, that Spotify has the ability to steer. In *Web IV*, the Judges observed that steering is the *ability* to divert plays from one record company to another based on any differences in royalty rate. 81 Fed. Reg. at 26356. The Judges also found that licensees can induce steering-based price competition without engaging in any actual steering "[b]y *threatening* to steer and thereby compelling Licensors A and B to compete for Licensee's business." *Id.* at 26367. In emphasizing that "the mere *threat* (explicit or implicit) by the service to divert performances from one record company to another gives the service negotiating leverage," the Judges quoted no less an authority than Professor Shapiro. *Id.* at 26357; *accord* 8/20/20 Tr. 3066:10-3067:17 (Shapiro).

The overwhelming evidence shows that, in the years following execution of the 2013 Agreements, Spotify developed considerable *ability* to divert performances from one record company to another. SX PFFCL ¶¶ 357-84. That ability [[redacted]]. SX PFFCL ¶¶ 374, 418-20; *see also* SX PFFCL ¶¶ 388-96 ([[redacted]]). It also [[redacted]]. SX PFFCL ¶¶ 398-404, 434-38, 451-54; *see also* SX PFFCL ¶¶ 386-87 ([[redacted]]). [[redacted]]. SX PFFCL ¶¶ 398-404, 428-56 ([[redacted]]); SX PFFCL ¶¶ 412-27 ([[redacted]]); Ex. 5609 ¶ 53 (Harrison WDT).

Response to ¶ 65. The Services are wrong that SoundExchange relies on a "different" kind of steering. *See* Resp. to ¶ 64. They also conflate Spotify's ability to exercise control over programming on its playlists with its motivation for selecting particular tracks. As Professor Shapiro repeatedly recognized, including in the cited testimony, [[redacted]]. SX PFFCL ¶¶ 357-84; 8/18/20 Tr. 2650:10-20 (Shapiro); 8/19/20 Tr. 2868:20-25 (Shapiro); 8/20/20 Tr. 3047:13-18, 3050:17-3051:12 (Shapiro). The record is clear that [[redacted]

[redacted].[10] *See* SX PFFCL ¶¶ 398-404, 428-56 ([[redacted]]); SX PFFCL ¶¶ 412-27 ([[redacted]]); 8/19/20 Tr. 2869:15-19 (Shapiro).

Response to ¶ 66. Instead of grappling with the clear evidence that [[redacted]], *supra* Resp. to ¶ 64, the Services create and attack strawmen. Their arguments have no merit. *See infra* Resp. to ¶¶ 67 ([[redacted]]), 67-72 ([[redacted]]), 88-90 ([[redacted]]), 92-101 ([[redacted]]).

(i) The Judges Have Made Clear that Services Can Obtain the Benefit of Steering Without Engaging in Actual Steering

Response to ¶ 67. The Services ignore evidence that [[redacted]]. SX PFFCL ¶¶ 421, 423, 433, 442-43; *see also* Exs. 5011, 5037, 5038. In any event, the *Web IV* determination does not require that steering-based price competition [[redacted]]. *Supra* Resp. to ¶ 14. In fact, the Judges expressly recognized that licensees can obtain lower prices merely by threatening to steer. 81 Fed. Reg. at 26367. Likewise, Professor Shapiro [[redacted]]. 8/20/20 Tr. 3052:1-14 (Shapiro).

[10] The Services' question-begging assertion is not to the contrary. *See* JPFFCL ¶ 65 (claiming only that control over programming does not "in and of itself" resolve whether ability to steer induced price competition).

Response to ¶ 68. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). Moreover, the Services attempt to impose an evidentiary burden that has no legal or economic basis. Steering is the "*ability* to control the mix of music that's played on the service in response to differences in royalty rates charged by different record companies." *See Web IV*, 81 Fed. Reg. at 26356 (quoting Professor Shapiro) (emphasis added); *id.* at 26367. A threat to steer is sufficient for a service to obtain the benefits of steering-based price competition. *Id.* at 26367. Economists from both participant groups have reiterated that principle, explaining that the credible threat of steering (whether explicit or implicit) can confer bargaining leverage. *Web IV*, 81 Fed. Reg. at 26357 (citing Professor Shapiro); *see also* 8/11/20 Tr. 1211:23-1213:22, 1347:14-1348:4 (Orszag). This disposes of the contention that actual evidence of steering is needed. And that argument rings particularly hollow given (1) Professor Shapiro's [[redacted]], *see* Resp. to ¶ 17, and (2) [[redacted]]. 8/20/20 Tr. 3050:17-3051:12 (Shapiro); *see also, e.g.*, Ex. 5221 at 5; Ex. 5401 at 3; Ex. 5413 at 1. The Services' factual assertions are addressed below. *See* Resp. to ¶¶ 70-72.

Response to ¶ 69. SoundExchange's witnesses were clear that [[redacted]]. SX PFFCL ¶¶ 392-94. More importantly, the cited testimony is irrelevant because steering-based price competition can manifest when a service has the ability to steer and credibly threatens to steer, which [[redacted]]. *Supra* Resp. to ¶¶ 64, 68. The Services' suggestion that some record companies have not reported lowering royalties to undercut competition is also irrelevant. The Services acknowledge, as they must, that price competition does not require one seller pricing below another. *Supra* Resp. to ¶ 14. Moreover, the Services ignore evidence that [[redacted]]

[redacted]. SX PFFCL ¶¶ 421, 423, 433, 442-43; *see also* Exs. 5011, 5037, 5038. [[redacted]]. 9/3/20 Tr. 5705:2-11 (Harrison).

Response to ¶ 70. The Services' emphasis on actual evidence of steering is a red herring. *Supra* Resp. to ¶¶ 64, 68. In any event, record companies [[redacted]]. SX PFFCL ¶¶ 392-94. The Services gesture at reality by acknowledging some of the reasons why it is hard to generate proof of steering, including that [[redacted]]." JPFFCL ¶ 70 (quoting Ex. 4014). Notwithstanding the [[redacted]]. *See* 9/2/20 Tr. 5371:12-20 (Piibe); 9/3/20 Tr. 5698:13-24 (Harrison). Moreover, the evidence demonstrates that [[redacted]]. *See, e.g.*, SX PFFCL ¶¶ 374, 418-20, 451; *see also* 9/3/20 Tr. 5698:5-8 (Harrison).

Response to ¶ 71 (body). The Services omit important portions of the documents and testimony, which reinforce [[redacted]]. For example, the Services place great weight on [[redacted]]." Ex. 4014 at 1. The document likewise notes: [[redacted]]." *Id.* at 5. In other words, the document confirms that [[redacted]

[redacted]].
9/3/20 Tr. 5601:10-5602:11 (Adadevoh).

More importantly, the Services' assertions reinforce that evidence of actual steering is irrelevant. *Supra* Resp. to ¶¶ 64, 68. While the Services focus narrowly on proof of steering, they [[redacted]]. SX PFFCL ¶¶ 440-56. They likewise ignore the considerable evidence that [[redacted]]. *Id.* at ¶¶ 428-39. In other words, the Services simply ignore evidence that [[redacted]]. *Id.* at ¶¶ 398-404.

Response to ¶ 71 (footnote). The challenges associated with [[redacted]]. SX PFFCL ¶¶ 391-92, 394. Moreover, [[redacted]]. *See infra* Resp. to ¶¶ 152-53. In any event, the alleged [[redacted]]. *Supra* Resp. to ¶¶ 64, 68. [[redacted]]. SX PFFCL ¶¶ 398-404, 428-56.

Response to ¶ 72. Because [[redacted]], *supra* Resp. to ¶¶ 64, 68, [[redacted]]. It is also misleading for several reasons.

First, although the Services concede that the cited documents provide [[redacted]].” The cited documents undermine this characterization. For example, the [[redacted]]. Ex. 4014 at 5. [[redacted]]. *Id.* ([[redacted]]); Ex. 4017 at 4 [[redacted]]); Ex. 5223 at 1 ([[redacted]]).

Second, while the Services call the [[redacted]]. 9/2/20 Tr. 5204:14-18 (Piibe); SX PFFCL ¶ 393. [[redacted]]

Third, the Services imply that this evidence [[redacted]]

[redacted]]. Ex. 4014 at 5; *cf.* SX PFFCL ¶¶ 392, 394 ([[redacted]]).

Finally, the Services' reference to [[redacted]]. *See* Resp. to ¶¶ 102-04, *infra*.

(ii) SoundExchange's Considerable Evidence that [[redacted]]

Response to ¶ 73. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). Additionally, the Services mischaracterize SoundExchange's argument, which is that [[redacted]]. *Supra* Resp. to ¶¶ 64-65; SX PFFCL ¶¶ 398-404, 428-56 ([[redacted]]); SX PFFCL ¶¶ 412-27 ([[redacted]]).

Response to ¶ 74. SoundExchange incorporates its responses to ¶¶ 17, 64-65, *supra*.

Response to ¶ 75. The record demonstrates that [[redacted]]. *Supra* Resp. to ¶ 64. In that regard, the Services' focus on the conduct of marketing personnel, and on track-specific discounts, is a red herring. *Supra* Resp. to ¶¶ 18, 64. [[redacted]]. *Supra* Resp. to ¶¶ 17, 64

Response to ¶ 76. The [[redacted]]

[redacted]]. *Supra* Resp. to ¶¶ 70-72. In any event, the credible threat to steer is what matters. *See* Resp. to ¶ 68.

(iii) The Record Confirms that [[redacted]]

Response to ¶ 77. The Services construct and attack a strawman. SoundExchange does not contend that the [[redacted]]. Rather, SoundExchange contends that [[redacted]]. Both points were discussed at length in record company witnesses' written testimony, Ex. 5609 ¶¶ 45-53 (Harrison WDT); Ex. 5611 ¶¶ 12, 29, 32 (Adadevoh WDT); Ex. 5613 ¶¶ 24-28, 34 (Piibe WDT), and are corroborated by contemporaneous documents and trial testimony, SX PFFCL ¶¶ 398-404, 412-56. Consider the cited trial testimony from Ms. Adadevoh, which concerned [[redacted]].[11] 9/3/20 Tr. 5497:11-5499:8 (Adadevoh). [[redacted]]. *See, e.g.*, 9/3/20 Tr. 5489:15-5490:21, 5496:14-5497:1 (Adadevoh).

Response to ¶ 78. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). In any event, this is misdirection. In their

[11] The Services' citation to Mr. Piibe's trial testimony has no bearing on this issue whatsoever. It concerns [[redacted]].

written testimony, record company witnesses provided substantial evidence that [[redacted]]. *See, e.g.*, Ex. 5609 ¶ 53 (Harrison WDT); Ex. 5611 ¶ 12 (Adadevoh WDT); Ex. 5613 ¶¶ 24-28 (Piibe WDT). The Services' actual complaint is that SoundExchange did not attach negotiation documents to its written direct case. However, the Services do not cite any order, determination, or regulation in connection with their observation, perhaps because they know that participants are not required to attach all potential trial exhibits to written testimony (whether direct or rebuttal). *See* 37 C.F.R. § 351.10(c)-(d); *see also* Order on Hearing Schedule (Feb. 26, 2020); Order on Hearing Schedule and Related Prehearing Matters (June 10, 2020). In fact, the Services *also* introduced several exhibits that were not attached to their written testimony, including for purposes of supporting points made in their written testimony, Ex. 1018, 1021, 1024, 1031, 2082, 2083, 2097, 2103-04, 2177-78, 2181-82, 3024-359, 3065-76, 4063-66, 4068, and including documents from their own files, 1018, 1021, 1024, 1031, 2082, 2083, 2097, 2103-04, 2178, 4060, 4063-66, 4068. In any event, the negotiation documents are plainly admissible. *Infra* Resp. to ¶ 82.

Response to ¶ 79. SoundExchange incorporates its response to ¶ 78, *supra*. Moreover, the Services admit that [[redacted]]. *See* JPFFCL ¶ 79; *accord* 8/20/20 Tr. 3050:17-3051:12 (Shapiro); Ex. 5221 at 5; Ex. 5401 at 3; Ex. 5413 at 1. The cited documents are consistent with considerable record evidence that [[redacted]]. SX PFFCL ¶¶ 412-27.

Response to ¶ 80. SoundExchange incorporates its response to ¶ 78, *supra*. Unable to question the reliability of contemporaneous documents, *see* 8/19/20 Tr. 2870:22-2871:1 (Shapiro); 8/20/20 Tr. 3085:10-14 (Shapiro), the Services attempt to distance Mr. Harrison from his testimony about [[redacted]]. However, [[redacted]

[redacted].[12] 9/3/20 Tr. 5646:21-5647:13 (Harrison). Moreover, Mr. Harrison was intimately familiar with the [[redacted]], 9/3/20 Tr. 5695:4-9 (Harrison), [[redacted]]. 9/3/20 Tr. 5640:13-5642:6, 5643:14-5644:5 (Harrison).

Response to ¶ 81. SoundExchange incorporates its response to ¶ 78, *supra*. Again unable to question the reliability of contemporaneous negotiation documents, the Services incorrectly portray [[redacted]]. *See, e.g.*, 9/3/20 Tr. 5610:25-5611:10 (Adadevoh); Ex. 4014 at 1; 5265 at 1; 5401 at 1.

Response to ¶ 82. In December 2019, at the Services' insistence, SoundExchange produced thousands of negotiation documents. The Services made these a prominent part of their rebuttal case, and introduced dozens of them as trial exhibits. Now, the Services renew their ad hoc effort to block admission of similar documents that complete the picture of the negotiations. In effect, they ask the Judges to base their determination on a skewed and inaccurate record. They make that request without citing any legal authority and over the recommendation of Professor

[12] [[redacted]]. 9/3/20 Tr. 5695:4-22 (Harrison).

Shapiro, who testified that the Judges should review "a lot" of the documents to "get the whole picture." *See* 8/19/20 Tr. 2870:22-2871:1 (Shapiro).

Although the Services have retreated from many of the frivolous arguments they articulated at trial, they stand by an invented requirement that participants attach all potential trial exhibits to their written statements. That position finds no support in the orders, determinations, and regulations that govern this proceeding. *See* Resp. to ¶ 78. Moreover, the Judges have already overruled the Services' only preserved procedural objection to the introduction of negotiation documents. 9/2/20 Tr. 5137:21-25 (overruling objection that reserve exhibits cannot be used on direct examination). The Judges have also issued evidentiary rulings, in connection with non-label documents, that dispose of the Services' foundation objections. *See, e.g.*, 8/31/20 Tr. 4785:16-4686:20 (overruling objection based on sponsoring witness requirement because requirement goes to authenticity not personal knowledge);[13] 8/31/20 Tr. 4791:8-23 (overruling Rule 602 objection that document could not be admitted because witness lacked personal knowledge).

The Services' remaining objections have no merit. Their hearsay objections should be overruled for reasons set out in motion practice. *See also* 8/20/20 Tr. 3085:10-14 (Shapiro) ([[redacted]]). Their authenticity objections should be overruled because there is no genuine question as to these documents' authenticity, *see, e.g.*, 9/2/20 Tr. 5236:9-5237:2, 5243:2-15 (Piibe); 9/3/20 Tr. 5486:8-5487:7 (Adadevoh); 9/3/20 Tr. 5644:6-25, 5648:6-5469:8 (Harrison), particularly given the Services' introduction of similar exhibits and the testimony at trial, *see, e.g.*, Ex. 2131,

[13] Even if anything remained of the Services' sponsoring witness argument (nothing does), the documents should be admitted under the good cause exception to that provision because the documents were produced during direct-phase discovery, cited by the Services in rebuttal testimony, introduced by the Services at trial, and relied on by their experts at trial. Professor Shapiro's testimony would alone establish good cause. 8/19/20 Tr. 2870:22-2871:1 (Shapiro).

2124, 4018-20, 4023, 4026. Finally, this proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c).

Response to ¶ 83. Each of the cited documents clearly shows that [[redacted]]. According to Exhibit 5413, which memorialized a discussion from July 2016, [[redacted]]). Ex. 5413 at 1. According to Exhibit 5221, dated September 2016, [[redacted]] Ex. 5221 at 5. This is what [[redacted]]. *See also* Ex. 5401 at 3 ([[redacted]]); Ex. 5264 at 4 ([[redacted]]); Ex. 5265 at 2 ([[redacted]]); Ex. 5469 ([[redacted]]).

The Services' insistence on [[redacted]] has no basis in law, economics, reality, or the record. As Professor Shapiro explained, [[redacted]].[14] 8/20/20 Tr. 3067:1-17 (Shapiro) ("[[redacted]]."); *see also* 8/13/20 Tr. 1875:16-22 (Orszag); *Web IV*, 81 Fed. Reg. at 26357 (quoting Professor Shapiro). Nor would one expect [[redacted]], *supra* Resp. to ¶¶ 69-70, [[redacted]

[14] The Services' assertion that Ex. 5221 [[redacted]]. *See* SX PFFCL ¶¶ 412-27. Moreover, [[redacted]].

[redacted]].

Response to ¶ 84. The Services talk about "scores" of documents, but identify only one. That document, Exhibit 4050, says very little about how [[redacted]]. SX PFFCL ¶¶ 418-21, 423-24. In other words, the record confirms that [[redacted]].[15]

Response to ¶ 85. The assertion that [[redacted]]. Whether record companies [[redacted]] is a factual question. But the Services conspicuously ignore testimony from record company witnesses, contemporaneous documents, and the empirical analysis of Sirius XM's former expert. *Compare* JPFFCL ¶ 85, *with* SX PFFCL ¶¶ 357-84, 412-56. That evidence confirms that record companies [[redacted]].

The Services' theoretical arguments are uninformative. Professor Shapiro has testified that [[redacted]]."[16] 8/20/20 Tr. 3056:9-19 (Shapiro); *see also supra* Resp. to ¶ 17. While the Services assert that effect would be "modest," Professor Shapiro [[redacted]]. 8/20/20 Tr. 3056:9-19 (Shapiro). And while he did assert that [[redacted]

[15] Exhibit 4050 is notable for one reason: [[redacted]]. Ex. 4050 at 2.

[16] Although Professor Shapiro asserts that [[redacted]], he is incorrect. SX PFFCL ¶¶ 385-397; 478-482; *Infra* Resp. to ¶¶ 92-101; 151-56.

[redacted]. 8/20/20 Tr. 3055:21-3057:5 (Shapiro). Additionally, his assessment of record company fallback values is inconsistent with the record, which indicates that [[redacted]]. *See* SX PFFCL ¶¶ 298-345. Finally, the Services' reference to carriage competition is both incorrect, *see* Resp. to ¶ 16, and irrelevant. The ability to create carriage competition says nothing about the ability to create steering-based price competition.

Response to ¶ 86. The fact that record companies [[redacted]] is not informative for several reasons. *First,* the record illustrates that [[redacted]].[17] SX PFFCL ¶¶ 298-345. *Second*, [[redacted]]. *See* Resp. to ¶ 16. *Third*, as Professor Shapiro has explained, and the Judges have held, [[redacted]]. *See, e.g.*, *supra* Resp. to ¶¶ 12, 17, 64, 68.

(iv) SoundExchange Presented Concrete and Contemporaneous Evidence of [[redacted]]

Response to ¶ 87. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). In any event, the Services are wrong. SX PFFCL ¶¶ 398-404, 421, 434, 442-43.

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[17] To imply a contrary conclusion, the Services cite the testimony of a single witness, who is responsible for marketing at a single label. But the Services mischaracterize the testimony. As Mr. Sherwood explained, [[redacted]]." Ex. 5620 ¶ 38 (Sherwood WDT); *accord id.* at ¶¶ 38-48. Moreover, the Services' mischaracterize Mr. Sherwood's testimony regarding [[redacted]]. Ex. 5611 ¶ 36 (Adadevoh WDT); Ex. 5338; Ex. 5519. Third, as discussed, Mr. Sherwood's [[redacted]].

Response to ¶ 88. [[redacted]]. *Id.* at ¶¶ 421-23. [[redacted]]. *Id.* at ¶¶ 421-425. [[redacted]]. *Id.* at ¶¶ 426-27; *see also* Ex. 5609 ¶ 53 (Harrison WDT). The Services' remaining assertions are inconsequential. [[redacted]] does not require one record company to price lower than another,[18] *supra* Resp. to ¶ 14, and does not require [[redacted]], *supra* Resp. to ¶ 83.

Response to ¶ 89. The record confirms that [[redacted]]. SX PFFCL ¶ 433. The record also confirms that [[redacted]], which does not require that a record company secure more plays in exchange for a discount, does not require that a record company price below competitors, and does not require that a record company receive a express steering threat.[19] *Supra* Resp. to ¶¶ 14, 83.

Response to ¶ 90. The assertion that [[redacted]]. The record is clear: [[redacted]]

[18] Moreover, as the Services acknowledge, [[redacted]]. JPFFCL ¶ 88; *see also* 9/3/20 Tr. 5705:2-12 (Harrison); *accord* 8/12/20 Tr. 1739:7-1740:2 (Orszag).

[19] The services also treat absence of evidence as evidence of absence. Although [[redacted]]. Ex. 1103 ¶ 63 (Peterson AWDT). Moreover, [[redacted]]. SX PFFCL ¶ 433.

[redacted].” Ex. 5613 ¶¶ 24-25 (Piibe WDT). Mr. Piibe explained: “[[redacted].” *See id.* at ¶ 28 (Piibe WDT); SX PFFCL ¶¶ 401-02, 446-56. This is [[redacted]]. *Supra* Resp. to ¶ 14.

Additionally, in referring to Exhibit 4070, the Services bury the lede: That [[redacted]]. *See* Ex. 4070 at 35. [[redacted]]. SX PFFCL ¶¶ 442-43.

Response to ¶ 91. The Services ignore considerable evidence that [[redacted]], SX PFFCL ¶¶ 398-404, and [[redacted]]. *Id.* at ¶¶ 421, 433, 442-43. They also mischaracterize Mr. Orszag's testimony. As he explained, the evidence indicates that [[redacted]]. *See, e.g.*, 8/11/20 Tr. 1264:22-1265:20 (Orszag); Ex. 5602 ¶ 156 (Orszag WDT). The Services' remaining arguments are irrelevant. *Supra* Resp. to ¶ 14 (explaining that [[redacted]] does not require one supplier to price lower than another).

(v) [[redacted]]

Response to ¶ 92. The record confirms that [[redacted]] Mr. Orszag's conclusion that the agreements reflect effective competition. *See* SX PFFCL ¶¶ 385-97.

Response to ¶ 93. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). Moreover, although [[redacted]], Ex. 5609 ¶ 56 (Harrison WDT); Ex. 5611 ¶ 33 (Adadevoh WDT); Ex. 5613 ¶ 26 (Piibe WDT), [[redacted]]. SX PFFCL ¶ 391.

Response to ¶ 94. No response.

Response to ¶ 95. As the Services note, [[redacted]]. 9/3/20 Tr. 5700:21-5701:11 (Harrison).

Response to ¶ 96. [[redacted]]. *See* SX PFFCL ¶¶ 388-90. [[redacted]]. *Id.* at ¶¶ 389-90. [[redacted]].

Response to ¶ 97. The Services omit an important detail in their citation to Mr. Orszag's testimony. As Mr. Orszag explained at trial, [[redacted]].

8/12/20 Tr. 1709:17-1711:12 (Orszag). Record company testimony and documents corroborate that idea. *See, e.g.*, SX PFFCL ¶ 425; Ex. 5221 at 5. For example, [[redacted]]. 9/3/20 Tr. 5702:11-21 (Harrison). Likewise, while [[redacted]]. 9/2/20 Tr. 5374:17-5375:5 (Piibe).

Response to ¶ 98. According to the Services, [[redacted]].[20] This is illogical. [[redacted]]. SX PFFCL ¶¶ 392, 394.

Response to ¶ 99. The Services have been able to find only a single document to cite for their assertion that enforcement arguments are "belied" by contemporaneous label documents. That document actually confirms that it is [[redacted]]. SX PFFCL ¶ 435; *supra* Resp. to ¶ 71.

Response to ¶ 100. The Services are wrong for two reasons. First, even if [[redacted]], *but see* SX PFFCL ¶¶ 388-91, and [[redacted]], *but see id.* at ¶¶ 392-395, [[redacted]]

[20] The Services claim that record companies [[redacted]]. JPFFCL ¶ 98. Moreover, [[redacted]]. *See also* 9/3/20 Tr. 5609:24-5610:17 (Adadevoh) ([[redacted]]).

[redacted]]. *Id.* at ¶¶ 386-87. Second, [[redacted]]. *Id.* at ¶ 393. And the major record companies do not comprise 100% of the market. Ex. 5602 ¶ 27, Table 2 (Orszag WDT). As a result, [[redacted]].

Response to ¶ 101. [[redacted]]. *See, e.g.*, SX PFFCL ¶¶ 412-56. Moreover, documents indicating that [[redacted]]. Indeed, at trial, Professor Shapiro conceded that [[redacted]]. 8/20/20 Tr. 3090:11-3092:24 (Shapiro). Professor Shapiro also conceded that steering competition can cause a record company to agree to lower rates to *protect* play share. 8/18/20 2650:2-9 (Shapiro). [[redacted]].

[[redacted]] Ex. 4016 at 1. In that context, [[redacted]

[redacted].[21] Ex. 4016 at 1. It is unremarkable that, as a matter of bargaining, a record company [[redacted]].[22]

Response to ¶ 102. In addition to making factual omissions and errors, the Services draw incorrect conclusions from the negotiation of [[redacted]].

To begin, the Services omit an important fact: [[redacted]]. *See* Ex. 2062 at 19 (UMG) ([[redacted]]); Ex. 5074 at 12 (SME) ([[redacted]]). [[redacted]].

[[redacted]]. *Supra* Resp. to ¶ 100.

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[21] [[redacted]]. *See* JPFFCL ¶ 95; Ex. 5037.

[22] It is also unremarkable that [[redacted]]. Ex. 4016 at 1; *cf.* SX PFFCL ¶¶ 398-404.

Finally, the Services contend that [[redacted]].” JPFFCL ¶ 102. Neither assertion is correct.

As to (1): [[redacted]]. *See* Ex. 5011 at 18-19; Ex. 5037 at 21-22; Ex. 5038 at 10; *see also* JPFFCL ¶ 103 (noting that [[redacted]]).

As to (2): Professor Shapiro is incorrect for at least two reasons. [[redacted]].[23] Ex. 5613 ¶ 26 (Piibe WDT). [[redacted]]. *Id.* at ¶ 27. [[redacted]].

Response to ¶ 103. SoundExchange incorporates its response to ¶ 102 *supra*. Additionally, the Services conspicuously omit reference to the [[redacted]]. The Services also elide the fact that [[redacted]], *see* JPFFCL

23 [[redacted]].

¶ 103, [[redacted]].

Response to ¶ 104. Quite the contrary. The cited documents indicate that the record companies [[redacted]]. Moreover, the documents illustrate that [[redacted]]. For example, Exhibit 4018 illustrates that [[redacted]]. Ex. 4018 at 3; *see also* 9/2/20 Tr. 5198:18-5203:22, 5205:2-17 [redacted].” Ex. 4018 at 3. [[redacted]]. *See* Ex. 5011; *accord* 9/2/20 Tr. 5220:22-5222:23 (Piibe).

(vi) There is No Genuine Dispute that [[redacted]]

Response to ¶ 105. There is no genuine dispute that [[redacted]]. *See* SX PFFCL ¶¶ 346-84. Professor Shapiro repeatedly acknowledged [[redacted]]. 8/19/20 Tr. 2868:20-25 (Shapiro); *see also* 8/18/20 Tr. 2650:10-20 (Shapiro); 8/20/20 Tr. 3047:13-18, 3050:17-3051:12 (Shapiro). Sirius XM's former expert, Professor Joel Waldfogel, empirically demonstrated that [[redacted]]. SX PFFCL ¶¶ 377-81. [[redacted]]. *See, e.g.*, Ex. 5221 at 5; Ex. 5401 at 3; Ex. 5413 at 1. [[redacted]

[redacted]]. SX PFFCL ¶¶ 398-404, 412-56. Finally, this proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c).

Response to ¶ 106. The Services emphasize what brings users to a subscription on-demand service. That question is irrelevant. The critical question is how users behave on the platform and whether user behavior gives Spotify the *ability* to divert plays from one record company to another based on any differences in royalty rate. *Web IV*, 81 Fed. Reg. at 26356. [[redacted]]. SX PFFCL ¶¶ 80, 357-84. That is true for two reasons. First, 32% of monthly content hours occurred on playlists programmed by Spotify. *Id.* at ¶ 80. Second, the amount and nature of listening on playlists gives Spotify tremendous power to influence listening across the platform, a point Professor Waldfogel demonstrated empirically, *id.* at ¶¶ 377-81, [[redacted]], *id.* at ¶¶ 363-69. In this regard, [[redacted]].

Response to ¶ 107. The fact that Spotify playlists offer features that noninteractive services do not is irrelevant. [[redacted]]. SoundExchange incorporates its responses to ¶ 105 and ¶ 106.

Response to ¶ 108. The Services are wrong in two respects. First, the record confirms that playlisting activity on Spotify has grown tremendously [[redacted]]. SX PFFCL ¶¶ 346-84. That has necessarily caused significant convergence. Second, and more importantly, evidence of convergence between interactive and noninteractive services is irrelevant to the competition question. What matters is whether there have been developments in the market for interactive services that render rates in the Benchmark Agreements consistent with effective competition. There have. SX PFFCL ¶¶ 296-456.

2. Spotify and Apple Music Are "Must Haves"

Response to ¶ 109. Actually, Mr. Orszag concluded that Spotify and Apple Music are must haves for the record companies based on a confluence of factors. Ex. 5602 ¶¶ 119, 129 (Orszag WDT) [[redacted]]. SX PFFCL ¶¶ 311-17. The Services simply ignore the others. *Id.* at ¶¶ 318-45.

Response to ¶ 110. This misrepresents Mr. Orszag's opinion. Mr. Orszag concluded, rightly, that the immediate consequences of a disruption in the relationship between Spotify and a record company would fall most heavily on the record company. Mr. Orszag further concluded that this asymmetry would *reduce* the hold-out power that must-have record companies might otherwise enjoy, and therefore enhance Spotify's relative bargaining power. Ex. 5602 ¶ 137 (Orszag WDT). However, Mr. Orszag's opinion that rates negotiated in the Benchmark Agreements are consistent with effective competition is predicated on two factors: Spotify's increased importance to record companies and Spotify's ability to steer. *Id.* at ¶ 151. The Services might prefer to take those questions separately, but an appropriate analysis of relative bargaining power looks to all the leverage that entities bring to a negotiation and, in this case, demonstrates that rates negotiated between the major record companies and Spotify are consistent with effective competition.[24] SX PFFCL ¶¶ 297-486.

[24] Although the Judges in *SDARS III* did not conclude that the interactive services market was effectively competitive, that market continued to become more competitive following the submission of evidence in that case and execution of the Benchmark Agreements. Moreover, the Judges did not have access to the comprehensive evidence submitted in this proceeding, including contemporaneous negotiation documents and updated market data. *Supra* Resp. to ¶ 60; 8/13/20 Tr. 2073:9-2074:7 (Orszag). Finally, the Judges determination in *SDARS III* required taking the market for interactive services as a whole. *SDARS III*, 83 Fed. Reg. at 65243. This case presents a narrower question, whether Spotify brought sufficient relative bargaining power to its negotiation of the Benchmark Agreements. The answer to that question—which the Judges have never addressed, SX PFFCL ¶¶ 262-66—is yes. *Id.* at ¶¶ 259-493.

Response to ¶ 111. As Mr. Orszag explained, there are several economic factors that must be considered in attempting to define must-have status. Ex. 5602 ¶ 114 (Orszag WDT). The Services ignore a critical one: time. There is no dispute that Spotify needs to license the catalog of each major record company to remain viable, in the long-term. The Services' economic experts treat the long-term as [[redacted]]. *See* 8/25/20 Tr. 3714:15-20 (Peterson) ([[redacted]]); Ex. 4107 at 10-11 (Shapiro WRT) ([[redacted]]); 8/20/20 Tr. 3102:21-3103:9 (Shapiro). So do the Services. *See* JPFFCL ¶ 114. However, the record confirms that [[redacted]]. SX PFFCL ¶¶ 298-345. Based on that evidence, Mr. Orszag concluded that Spotify is a must have.

(i) The Correct Lens for Assessing Bargaining Power Is Real-World Evidence Regarding Fallback Values

Response to ¶ 112. The Services provide no principled basis for evaluating bargaining power based on the outcome of a "long-term, sustained disagreement." JPFFCL ¶ 112. They simply assert that their preferred time horizon is appropriate and that Mr. Orszag's is not. By contrast, Mr. Orszag evaluates bargaining power based on evidence developed in this proceeding, which indicates that [[redacted]]. SX PFFCL ¶¶ 298-345; *accord* Ex. 5077.

Response to ¶ 113. SoundExchange agrees that Spotify [[redacted]], JPFFCL ¶ 113; *accord* 8/25/20 Tr. 3714:15-20 (Peterson). SoundExchange also agrees that the [[redacted]]

[redacted].[25] JPFFCL ¶ 113. The key point, and link the Services conspicuously omit, is that the [[redacted]]. *See* 8/25/20 Tr. 3714:15-20 (Peterson). That point is consistent with the record in this case. SX PFFCL ¶¶ 339-343. It is also consistent with the Services' assertion that it is reasonable to assume only one-third of Spotify subscribers would abandon the service during [[redacted]]. *See* JPFFCL ¶ 117 (describing as "reasonable" assumptions Professor Shapiro made in assessing present discounted value, including assumption that "Spotify's interactive service would lose one-third of its subscribers during the first year, after which it would cease to operate," Ex. 4107 at 11 (Shapiro WRT)).

Response to ¶ 114 (Body). The analysis is not informative. First, it is grossly oversimplified, in that it excludes several important costs. For example, [[redacted]]. SX PFFCL ¶¶ 321, 327. [[redacted]]. *See id.* at ¶¶ 325, 327; Ex. 5611 ¶ 36 (Adadevoh WDT); Ex. 5603 ¶ 14 (Orszag WRT). [[redacted]], SX PFFCL ¶ 312, [[redacted]]. These are just a few of the costs that the Services ignore. *See id.* at ¶¶ 318-39. Second, the Services' focus on U.S. revenues understates cost to record companies. [[redacted]]. Spotify's powerful global presence means that it

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[25] [[redacted]]. SX PFFCL ¶¶ 329-30. Elsewhere, the Services recognize this risk. They describe as "reasonable" Professor Shapiro's assumption that 20% of subscribers would churn from Spotify to formats that do not generate incremental revenue to record companies. JPFFCL ¶ 117 (addressing assumptions made in attempting to assess present discounted value, including that 20% of listeners "would switch to forms of listening that generate no incremental royalty income for" record company, Ex. 4107 at 11 (Shapiro WRT)).

generates a higher percentage of record company revenue on a global basis. *See, e.g.*, Ex. 5618 ¶ 14 (Gallien WDT) (Spotify generated [[redacted]] of all UMG global revenue in 2018).

Response to ¶ 114 (Footnote): As Mr. Orszag explained at trial, it is appropriate to look at bargaining power during the course of negotiations, and up through execution of a particular agreement. 8/12/20 Tr. 1615:12-25 (Orszag). Moreover, in doing so, it is important to look at trends in the market that are well understood, including, for example, the growing use of service-generated playlists. 8/12/20 Tr. 1616:18-1617:3 (Orszag). That is because rational negotiators do not rely on a snapshot in time, but also look to the future. 8/12/20 Tr. 1616:18-1617:3 (Orszag).

Response to ¶ 115. SoundExchange incorporates its responses to ¶¶ 112-14, *supra*.

Response to ¶ 116. The record establishes that Apple Music would [[redacted]]. As Professor Shapiro clarified, in the cited testimony and the subsequent exchange, [[redacted]]. 8/20/20 Tr. 3103:19-3105:1 (Shapiro). In fact, record companies would [[redacted]]. That would be particularly true if, as Professor Shapiro has elsewhere assumed, Spotify users would divert in measures proportional to market share.[26] SX PFFCL ¶ 335.

Response to ¶ 117. Professor Shapiro's analysis is incomplete, misleading, and should be disregarded, for three reasons. First, it fails to account for or understates several important costs to record companies. *Supra* Resp. to ¶ 114. Second, it assumes, incorrectly, that record companies

[26] The Services' citation to Mr. Harrison's trial testimony is also misleading. As Mr. Harrison testified that, based on his years of experience, [[redacted]]. 9/3/20 Tr. 5733:7-9 (Harrison).

were willing to [redacted]. SX PFFCL ¶¶ 298-345. Third, it fails to account for lost *lifetime* value [redacted].[27] *Id.* at ¶¶ 329-30.

Response to ¶ 118. Dr. Leonard cites no evidentiary support for his opinion and it should be given no weight for reasons set out in response to ¶¶ 112-14 *supra* and SX PFFCL ¶¶ 298-345.

Response to ¶ 119. The assertion that effective competition is not possible when one party to a negotiation has complementary oligopoly power is incorrect. *See* Resp. to ¶ 12. The Judges have made that clear in past determinations. *See id.* In negotiating the Benchmark Agreements, Spotify had sufficient relative bargaining power to negotiate effectively competitive rates because the effects of any realistic impasse would have fallen more heavily on the record companies, SX PFFCL ¶¶ 298-345, and because Spotify had the ability to steer, [redacted]. *Id.* at ¶¶ 346-486.

Response to ¶ 120. This argument is misleading. Because of the transition from ownership to access models of consumption, subscription interactive services are a dominant and still growing dominant mode of listening. *Id.* at ¶¶ 306-10. Reduced royalties from the interactive services would have some effect on the relative percentage of revenue derived from various distribution channels, but would not alter the basic market trend that has made record companies dependent on revenue from interactive services. SX PFFCL ¶¶ 310-45.

(ii) When Bargaining Power Is Assessed Based on Real-World Evidence, Spotify Is a Must Have

Response to ¶ 121. The Services do not challenge the immediate impact of blackout on a record company. And their assertion that economics requires assessing bargaining power based on a "long-term perspective" is not supported. *See* Resp. to ¶ 112; SX PFFCL ¶¶ 298-305. In fact, [redacted]

[27] That risk would be particularly acute [redacted]. SX PFFCL ¶ 338.

[redacted]]. Ex. 5077; *cf.* Ex. 5613 ¶ 36 (Piibe WDT). [[redacted]], Ex. 5077, [[redacted]], SX PFFCL ¶¶ 298-345, [[redacted]].[28]

Response to ¶ 122. SoundExchange agrees that the majors are must have for interactive services. They are also must have for noninteractive services. SX PFFCL ¶¶ 583-609, 852-962.

Response to ¶ 123. Not so. Mr. Harrison and Mr. Piibe [[redacted]] Professor Shapiro's "reasonable assumption" that just one-third of Spotify users would divert during a one-year impasse, *supra* Resp. to ¶ 113, [[redacted]]. 8/25/20 Tr. 3714:15-20 (Peterson). The Services take issue with [[redacted]]. *See* Ex. 5609 ¶¶ 35-44 (Harrison WDT); Ex. 5613 ¶¶ 28-36 (Piibe WDT).

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[28] Mr. Harrison's testimony that [[redacted]]. *Supra* Resp. to ¶¶ 111, 114. [[redacted]]. 9/3/20 Tr. 5675:6-5676:4, 5724:4-7 (Harrison). The reference to Mr. Sherwood's testimony is misleading. *Supra* Resp. to ¶ 86 & footnote.

Response to ¶ 124. The fact that marketing personnel would [[redacted]], is unremarkable and would not mitigate the immediate consequences of an impasse with Spotify. SX PFFCL ¶¶ 298-345.

Response to ¶ 125. Actually, Mr. Piibe's written and trial testimony provides considerable support for [[redacted]]. Ex. 5613 ¶¶ 29-30, 34 (Piibe WDT) (noting [[redacted]]); *accord* 9/2/20 Tr. 5229:9-5230:2, 5231:2-5232:9, 5385:4-11 (Piibe). The view also finds support in other record evidence, SX PFFCL ¶¶ 311-43. Desperate for a counterpoint, the Services cite testimony from marketing personnel. But that testimony only indicates that, [[redacted]]. Nor does Professor Shapiro's incomplete and misleading analysis of net present value. *Supra* Resp. to ¶ 117.

(iii) **The Record Indicates that [[redacted]]**

Response to ¶ 126. There is nothing speculative about Mr. Orszag's opinion that [[redacted]]. Ex. 5602 ¶ 130 (Orszag WDT). That is true for several reasons. [[redacted]]. SX PFFCL ¶ 321. [[redacted]]. Ex. 5620 ¶¶ 44-45 (Sherwood WDT). [[redacted]]

[redacted]. SX PFFCL ¶¶ 322-25; *accord* Ex. 5077 at 3; 9/3/20 Tr. 5676:5-25 (Harrison); 9/2/20 Tr. 5429:6-14 (Fowler). [[redacted]]. Ex. 5602 ¶ 130 (Orszag WDT).

Additionally, the Services' claim that testimony about [[redacted]] is speculative is disingenuous. The Services' only citation illustrates that Mr. Orszag derived his factual understanding from interviews conducted as part of this proceeding. More importantly, the Services simply ignore that Mr. Orszag relied on additional record evidence, including written testimony submitted by record company executives and contemporaneous business documents, in forming his opinion. 8/11/20 Tr. 1281:12-1287:7 (Orszag); *accord* Ex. 5602 ¶ 130 (Orszag WDT) (citing record company testimony); Ex. 5603 ¶ 14 (Orszag WRT) (citing record company testimony and documents).

Response to ¶ 127. The Services' insistence on evaluating consequences of impasse based exclusively on long-term effects is misplaced. *Supra* Resp. to ¶¶ 111-12. That is particularly true [[redacted]]. *Supra* Resp. to ¶ 126. [[redacted]]. Ex. 5602 ¶ 130 (Orszag WDT); 9/2/20 Tr. 5231:19-5232:9 (Piibe). Second, the Services assume [[redacted]], but provide no basis for that assumption.

Response to ¶ 128. The Services again ignore [[redacted]]. *Supra* Resp. to ¶ 126. [[redacted]], *see, e.g.*, Ex. 5611 ¶ 36 (Adadevoh WDT); Ex. 5603 ¶ 14 (Orszag WRT), [[redacted]].

Response to ¶ 129. The Services ignore evidence that [[redacted]]. *See, e.g.*, Ex. 5611 ¶ 36 (Adadevoh WDT); Ex. 5603 ¶ 14 (Orszag WRT). Although Ms. Fowler's testimony is ambiguous, *see* 9/2/20 Tr. 5427:17-23 (Fowler) (noting [[redacted]]), the record is clear: [[redacted]]. SX PFFCL ¶¶ 322-25; 9/2/20 5231:19-5232:9 (Piibe); 9/3/20 Tr. 5676:11-18, 5680:3-19 (Harrison).

(iv) HHI Analysis Is an Initial Screen

Response to ¶ 130. Mr. Orszag's HHI analysis is not offered as proof of equal bargaining power. [[redacted]]

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[29] The Services' argument turns on two assumptions. The first is [[redacted]]. *E.g.*, SX PFFCL ¶ 323; Ex. 5620 ¶¶ 31, 49 (Sherwood WDT). The second is that [[redacted]].

[redacted]. 8/12/20 Tr. 1678:9-1679:25 (Orszag). The assertion that HHI is "completely uninformative" is incorrect for two reasons. First, the market for interactive services has been the most important source of revenue for the recorded music industry, since before execution of the Benchmark Agreements. Ex. 5604, App. 1 (Tucker WDT). Second, while the catalogs of each major record company are complements, [[redacted]]. 8/12/20 Tr. 1686:1-10, 1688:6-1689:10 (Orszag); *cf.* SX PFFCL ¶¶ 409, 453.

Response to ¶ 131. The assertions are incredibly misleading. As Mr. Orszag made clear at trial, [[redacted]]. 8/12/20 Tr. 1680:18-1682:4 (Orszag). [[redacted]].

Response to ¶ 132. The Services overstate the testimony. Mr. Orszag noted that there were [[redacted]]. 8/12/20 Tr. 1691:18-1692:1 (Orszag). Moreover, as Mr. Orszag explained, market positions present a distinct question. [[redacted]]. *See, e.g.*, Ex. 5602 ¶ 33, Table 4 (Orszag WDT).

Response to ¶ 133. SoundExchange incorporates its response to ¶ 132. The Services attack a straw man: No participant contends Spotify has monopsony power, and it is not necessary for a firm to possess monopsony power to become a must have. *Supra* Resp. to ¶¶ 109-11.

Response to ¶ 134. SoundExchange agrees that HHI analysis does not prove the presence of market power and only serves as an initial screen. *Supra* Resp. to ¶ 130. SoundExchange also agrees that the market for interactive services has elements of contestability. However, those elements of contestability do not materially limit the relative bargaining power that Spotify brings to its negotiation with the major record companies [[redacted]]. *See* SX PFFCL ¶¶ 331-36.

Response to ¶ 135. The proposition that rates negotiated with a must-have record company cannot be effectively competitive is incorrect. *Supra* Resp. to ¶¶ 12-13, 110. So is Professor Shapiro's conclusory assertion that rates negotiated between a must-have service and must-have record company do not reflect effective competition. *Id.* Professor Shapiro provides no support for that offhand testimony. 8/18/20 Tr. 2643:23-2644:19 (Shapiro). Neither do the services. JPFFCL ¶ 135. The assertion is inconsistent with the Judges articulations of effective competition, *supra* Resp. to ¶ 12, with bargaining theory, *cf.* SX PFFCL at ¶¶ 267-72, 301-05, with Professor Shapiro's prior testimony, *supra* Resp. to ¶ 12, and with [[redacted]]. SX PFFCL ¶¶ 297-48.

(v) The Conclusion that Spotify's Rates Are Consistent with Effective Competition Is [[redacted]]

Response to ¶ 136. This argument has no merit. It turns on an unsupported and incorrect assumption: [[redacted]

[redacted]]. That assumption finds no support in the record. In fact, the record establishes that [[redacted]]. SX PFFCL ¶¶ 306-482.

Response to ¶ 137. The Services make several arguments, all incorrect. First, they offer a misleading estimation of [[redacted]]. The estimation is misleading because it relies on 2016 data the Judges did not have in *SDARS III* and [[redacted]]. *See SDARS III*, 83 Fed. Reg. at 65242 (noting that benchmark only includes data from first half of that year). It is also misleading because it relies on partial 2019 data and is therefore distorted by seasonal variation. *See* Ex. 5602 ¶ 86 (Orszag WDT); 8/11/20 Tr. 1352:10-20 (Orszag). The appropriate calculation would compare [[redacted]]. Second, the Services offer arguments about [[redacted]], which have no merit for reasons set out in SoundExchange's initial proposed findings. SX PFFCL ¶¶ 286-87. Finally, the Services' assert that [[redacted]]. That argument finds no support in the record. *Infra* Resp. to ¶¶ 148-50; SX PFFCL ¶¶ 405-82.

3. The Services' Attempt to [[redacted]]

Response to ¶ 138. Mr. Orszag rightly concluded that [[redacted]]. SX PFFCL ¶¶ 298-485. The Services attempt to explain [[redacted]] have no merit. In short, the explanation rests on a single proposition: That the record companies [[redacted]]. That proposition finds no support in the record for the following reasons, among others set out in sections below. [[redacted]

[redacted].

Moreover, the Services do not conduct "careful analysis" of the negotiation record and seek to preclude the Judges from conducting a careful analysis of the negotiation record by standing on meritless objections to documents they do not like. *See* Resp. to ¶¶ 78, 82. In fact, these portions of the Services' brief do not grapple with a single one of the negotiation documents identified on SoundExchange's initial or reserve exhibit list. That the Services lean so heavily on a handful of documents illustrates the importance of developing a complete and accurate record on this issue. Indeed, a "careful analysis" of the negotiation file corroborates the written and oral testimony offered by the record company negotiators, and confirms that Mr. Orszag rightly concluded that rates in the Benchmark Agreements are consistent with effective competition.

(i) The Record Confirms that Record Companies [redacted]

Response to ¶ 139. The Services' do not thoroughly examine the negotiation history. *Supra* Resp. to ¶¶ 78, 82, 138. Moreover, the negotiation history and record [redacted], for at least four reasons. SX PFFCL ¶¶ 457-69. First, [redacted]. 8/20/20 Tr. 3088:15-22 (Shapiro). Second, [redacted]

[redacted]], SX PFFCL ¶ 459, [[redacted]]. *Id.* at ¶¶ 416-17. Third, [[redacted]]. *Id.* at ¶¶ 460-63. Finally, the theory that [[redacted]]. *Id.* at ¶¶ 464-69.

The cited documents are not contrary. They illustrate only that [[redacted]]. *See* Ex. 2131 ([[redacted]]); Ex. 4021 ([[redacted]]); Ex. 4022 at 1-2 ([[redacted]]). [[redacted]]. *See, e.g.*, Ex. 4022 at 1 ([[redacted]]); Ex. 2131 ([[redacted]]).

Notably, Professor Shapiro acknowledges that [[redacted]

[redacted] 8/19/20 Tr. 2883:3-9 (Shapiro). Although SoundExchange disputes the fallback position Professor Shapiro carved out during trial—[redacted].

Response to ¶ 140. SoundExchange agrees that [redacted]. SX PFFCL ¶ 458; *see* Resp. to ¶ 139.

Response to ¶ 141. The proposed finding is misleading. The existence of a benefit says nothing about how negotiating parties weigh that benefit. The Services do not and cannot cite any evidence indicating [redacted]. SX PFFCL ¶ 459. [redacted].[30] 9/2/20 Tr. 5265:12-17 (Piibe).

Response to ¶ 142. The Services omit portions of the correspondence that [redacted].[31] Ex. 4023 at 1. [redacted]. *Id.* [redacted].

[30] The Services' reference to [redacted]. 9/2/20 Tr. 5265:5-11 (Piibe); *accord* 9/3/20 Tr. 5578:5-21 (Adadevoh).

[31] The email also illustrates [redacted]. Ex. 4023 at 1.

Response to ¶ 143 (body). The Services rely on excerpted quotations that misrepresent the testimony. While Mr. Orszag noted that [[redacted]].[32] 8/11/20 Tr. 1367:3-15 (Orszag); 8/13/20 Tr. 1891:1-1893:14 (Orszag). Moreover, while Mr. Orszag joins Professor Shapiro in crediting the reliability of negotiation documents, the Services conspicuously omit [[redacted]]. *Supra* Resp. to ¶ 142.

Response to ¶ 143 (footnote): The Services have no substantive response to Mr. Orszag's testimony. For example, they remain silent on [[redacted]]. Moreover, they mischaracterize testimony concerning [[redacted]], SX ¶¶ 416, 426-27, 431-32, [[redacted]].

Out of options, the Services try some misdirection, focusing their argument on [[redacted]] reflect forces of effective competition.

[32] The fact that [[redacted]]. *Supra* Resp. to ¶ 139.

Even if the evidence were relevant (it's not), it only provides more support for Mr. Orszag. For example, Exhibit 2127 illustrates that, [[redacted]], SX PFFCL ¶¶ 431-32, [[redacted]].[33] Exhibit 2127 at 5-6. [[redacted]].[34]

Response to ¶ 144. The claim that [[redacted]]. 8/20/20 Tr. 3088:15-22 (Shapiro). The record provides no support for the assertion that [[redacted]]. *See* SX PFFCL ¶¶ 470-77; *see also* SX PFFCL ¶¶ 405-56. The cited documents illustrate this point. For example, Exhibit 4024 concerns [[redacted]]. *Supra* Resp. to ¶ 142. [[redacted]].[35] SX PFFCL ¶¶ 412-27.

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[33] The Services quote a portion of the document in which [[redacted]]. 9/3/20 Tr. 5578:5-21 (Adadevoh).

[34] The Services claim record companies [[redacted]]. *See, e.g.*, Ex. 2127. [[redacted]]. *Infra* Resp. to ¶ 146.

[35] Exhibit 4052 is a draft email and also uninformative. First, the Services again [[redacted]]. Ex. 5037 at 172. [[redacted]]

Response to ¶ 145. [[redacted]]. SX PFFCL ¶¶ 405-82. None of the Services' citations undermine that conclusion.

Harrison Testimony. The Service omit important context. While [[redacted]]. *See, e.g.*, 9/3/20 Tr. 5716:17-5717:23, 5719:15-24; 5726:18-5727:8 (Harrison); *see also* SX PFFCL ¶¶ 412-27.

Kooker Email. The Services [[redacted]], Ex. 4026 at 1, 4 ([[redacted]]), [[redacted]], *id.* at 3, [[redacted]], *id.* at 3.

WMG Board Call. The Services [[redacted]]. SX PFFCL ¶ 438. Moreover, [[redacted]], *see* SX PFFCL ¶¶ 428-439, [[redacted]]. *See, e.g.*, Ex. 4025 at 1 ([[redacted]]); Ex. 4021 at 3 ([[redacted]]).

[redacted]. SX PFFCL ¶ 424.

Additionally, the Services cite Dr. Peterson's assertion that [redacted] JPFFCL ¶ 145. [redacted].[36] *See* Ex. 4021 at 5 ([redacted]). [redacted]. *See* JPFFCL ¶ 145.

Response to ¶ 146 (Body). The Services claim [redacted]. However, [redacted]. In any event, the Services cannot offer a single citation to support their assertion that a causal relationship exists. Moreover, the Services make no effort to grapple with alternative explanations, including [redacted]. SX PFFCL ¶¶ 306-10. Most importantly, they ignore evidence that [redacted]. *See* Ex. 5602 ¶ 124, Table 10 (Orszag WDT).

The Services also misrepresent the relevance of [redacted]. *See, e.g.*, 9/3/20 Tr. 5485:20-5486:3 (Adadevoh); SX PFFCL ¶¶ 186-87. [redacted]

[36] There is no indication that [redacted]. Ex. 4021 at 5.

[redacted]. *See, e.g.*, Ex. 5609 ¶ 22 (Harrison WDT); Ex. 5611 ¶ 9 (Adadevoh WDT); Ex. 5613 ¶ 31 (Piibe WDT).

Response to ¶ 146 (Footnote). The Services critique calculations indicating that record companies [[redacted]]. *Supra* Resp. to ¶ 146. This time, the Services attempt to support their claim. But they can only muster two citations and neither provides support. First, the Services cite a statement from [[redacted]]. Second, the Services cite a statement from Mr. Harrison. [[redacted]]. *See* 9/3/20 Tr. 5721:19-5722:11 (Harrison). The proposed finding should therefore be disregarded as unsupported.

Response to ¶ 147. The proposed finding is misleading in two ways. First, the Services attribute the asserted rationale to all major record companies, but can only cite to testimony offered by UMG. [[redacted]]. Second, the Services mischaracterize the relevance of Mr. Harrison's testimony. [[redacted]

[redacted]. SX PFFCL ¶¶ 416-27.

(ii) [[redacted]]

Response to ¶ 148. In theory, [[redacted]] the Benchmark Agreements could be consistent with either effective competition or the exercise of complementary oligopoly power. [[redacted]]. 8/19/20 Tr. 2869:15-19 (Shapiro). The record in this case establishes that [[redacted]]. SX PFFCL ¶¶ 297-482. To prove their competing assertion, [[redacted]], the Services need and attempt to establish each of the following factual premises, among other things. *E.g.*, *infra* Resp. to ¶ 155. The record does not support a single one.

First, the Services need to prove that [[redacted]], *see* Resp. to ¶¶ 144-47, and there is none. SX PFFCL ¶¶ 412-27.

Second, the Services need to demonstrate that [[redacted]]. 8/19/20 2871:14-25 (Shapiro). On this point, [[redacted]]

[37] Because they have no affirmative evidence that [[redacted]], the Services pivot to other arguments. First, they assert [[redacted]]. That argument should be disregarded on factual and theoretical grounds. *Supra* Resp. to ¶¶ 14, 70. Next, the Services argue that

[redacted]]. SX PFFCL ¶ 482. [[redacted]]. *Id.* at ¶ 481. [[redacted]]. *Id.* at ¶ 480.

Third, the Services must prove that [[redacted]]. SX PFFCL ¶¶ 428-56. [[redacted]].

Response to ¶ 149. No major record company [[redacted]]. SX PFFCL ¶¶ 412-82. The Services' handful of attempts to marshal contrary evidence have no merit. *See* Resp. to ¶¶ 144-47. In other words, the Services' entire economic theory turns on a factual premise that is not supported by the record.

Response to ¶ 150. The Services cannot cite an economic expert who has argued that the referenced provisions reflect the exercise of complementary oligopoly power. In effect, the

[[redacted]]. JPFFCL ¶ 148 ([[redacted]]). [[redacted]]. SX PFFCL ¶¶ 417-20.

Services argues the provisions are consistent with complementary oligopoly power just because [[redacted]]. That is incorrect. For example, there is nothing remarkable about [[redacted]]. *Supra* Resp. to ¶ 146. Likewise, there is nothing remarkable about [[redacted]]. Record companies incur very substantial risks and makes very significant investments to create, produce, market, manufacture, distribute, and license sound recordings. *See, e.g.*, Ex. 5618 ¶¶ 7, 18-45 (Gallien WDT). Services share none of that risk. Accordingly, [[redacted]], are consistent with effective competition, particularly given the opportunity costs associated with licensing a particular platform. In any event, [[redacted]]. *See, e.g.*, Ex. 5037 at 172 ([[redacted]]); Ex. 5038 at 26-27 ([[redacted]]).

(iii) [[redacted]]

Response to ¶ 151. The theory that [[redacted]]. They were not. *Supra* Resp. to ¶¶ 144-47; SX PFFCL ¶¶ 470-82. Moreover, [[redacted]]. SX PFFCL ¶ 480. Ultimately, the [[redacted]]

[redacted]]. *Id.* at ¶¶ 416, 426-27, 431-32; *see also* 9/2/20 Tr. 5263:21-5265:17 (Piibe) (discussing Ex. 5469).

Response to ¶ 152. Actually, this element of the [[redacted]] is irrelevant, for several reasons. First, other record companies [[redacted]]. *See* 9/2/20 Tr. 5390:22-5391:2 (Piibe); 9/3/20 Tr. 5479:21-5480:12 (Adadevoh). Second, other record companies [[redacted]]. *See* 9/2/20 Tr. 5390:22-5391:2 (Piibe); 9/3/20 Tr. 5479:21-5480:12 (Adadevoh). Third, [[redacted]]. SX PFFCL ¶¶ 398-404, 435-38, 451-54.

Response to ¶ 153. The Services appear to argue that, [[redacted]]. That argument is incorrect for at least two reasons. As Professor Shapiro admitted, [[redacted]]. 8/20/20 Tr. 3052:1-14 (Shapiro). [[redacted]]. 8/18/20 Tr. 2650:2-9 (Shapiro). [[redacted]]. SX PFFCL ¶¶ 412-27.

Additionally, [redacted]. *Id.* at ¶ 481. [redacted]. *Id.* at ¶¶ 416-17.

Additionally, Mr. Orszag does not "argue" that [redacted]. Rather, Mr. Orszag states a fact. [redacted]. *Cf.* Ex. 5011 at 51 ("[redacted]); Ex. 5038 at 22 ([redacted]). There are several potential explanations, including: [redacted].[39] SX PFFCL ¶ 482.

Response to ¶ 154. The Services miss the point. Mr. Orszag did not conclude that [redacted]. SX PFFCL ¶¶ 421-23. Mr.

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[38] The Services [redacted].

[39] The Services dismiss [redacted]. 9/3/20 Tr. 5705:2-12 (Harrison). [redacted]. *See* Ex. 5011; 5038. [redacted].

Orszag's point, [[redacted]]. SX PFFCL ¶¶ 298-404, 412-27; *see also supra* Resp. to ¶¶ 14, 64.[40]

Response to ¶ 155 (Body). The Services entirely theoretical analysis of [[redacted]]. SX PFFCL ¶¶ 385-397. Moreover, the Services need to prove that [[redacted]]. Resp. to ¶¶ 14, 64; SX PFFCL ¶¶ 386-87. Although negotiations [[redacted]]. SX PFFCL ¶¶ 398-456.

Response to ¶ 155 (Footnote). Rather than confronting what record companies actually thought, as demonstrated by their testimony and by contemporaneous negotiation documents, the Services lean on an invented thought process that maps onto their theory of this case. The record does not support it. Just by way of example, the evidence demonstrates that record companies [[redacted]], SX PFFCL ¶¶ 298-345, [[redacted]], *id.* at ¶¶ 412-56. [[redacted]], *id.* at ¶ 388-97, [[redacted]]. *Id.* at ¶¶ 386-87, 425; *see also, e.g.*, 9/2/20 Tr. 5374:17-5375:5 (Piibe). [[redacted]]

[40] The assertion that [[redacted]]. SX PFFCL ¶ 420.

[redacted]], SX PFFCL ¶ 481, [[redacted]]. *See* 8/20/20 Tr. 3088:15-22 (Shapiro). [[redacted]], SX PFFCL ¶¶ 297-486, [[redacted]].

Response to ¶ 156. The Services' [[redacted]]. As discussed above, SoundExchange does not argue that [[redacted]]. SX PFFCL ¶¶ 421, 423, 433, 442-43; *see also* Ex. 5011; 5037; 5038. SoundExchange argues, based on considerable record evidence, that record companies [[redacted]]. Under those circumstances, and for other reasons described above, *see* Resp. to ¶¶ 151-55; *see also* SX PFFCL ¶¶ 479-82, [t[redacted]].[41]

4. The Services' Remaining Arguments Have No Merit

Response to ¶ 157. Dr. Peterson's analysis of [[redacted]], based on the Lerner equation, is wrong. First, Dr. Peterson does not demonstrate that any differences in elasticity justify a different percentage of revenue rate. There is reason to think they do not. The record reveals [[redacted]]. SX PFFCL ¶¶ 295-96. And, with respect to family plans, the record reveals [[redacted]]. SX PFFCL ¶¶ 292-96. Dr. Peterson ignores these inconvenient facts. He does no work to [[redacted]

[41] The Services' singular focus on the fact that [[redacted]] distorts the significance of the rate concessions. *Cf.* 8/12/20 Tr. 1737:9-16, 1738:12-23 (Orszag).

[redacted]]. Second, and relatedly, Dr. Peterson fails to consider that pricing strategies for discounted plans might reflect an emphasis on the lifetime weighted average elasticity of a customer. *Supra* Resp. to ¶ 43.

The Services also assert that effective competition is lacking because [[redacted]]. *Supra* Resp. to ¶ 155 (Footnote). [[redacted]], SX PFFCL ¶¶ 388-91, [[redacted]]. *Id.* at ¶¶ 398-404, 412-56. [[redacted]][42] the record in this case compels a different conclusion than reached in *Web IV*.

Response to ¶ 158. The Services recognition that [[redacted]

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[42] [[redacted]]. SX PFFCL ¶¶ 421-23.

[redacted]. SX PFFCL ¶¶ 412-56. [[redacted]]. *Id.* [[redacted]].[43] *Supra id.* at ¶¶ 416, 426-27. [[redacted]]. *Compare* Ex. 4021 at 7, 11, *with* Ex. 5038 (generally and at 26).

Response to ¶ 159. SoundExchange incorporates its responses to ¶¶ 18, 75.

Response to ¶ 160. Mr. Orszag takes Professor Shapiro on his own terms. Professor Shapiro determined that [[redacted]]. Professor Shapiro also determined that [[redacted]] pays rates consistent with effective competition and calculated [[redacted]] effective rates. Mr. Orszag makes no contribution to this process. He simply observes that [[redacted]]. SX PFFCL ¶¶ 483-86.

Response to ¶ 161. This argument is incorrect. [[redacted]]. SX PFFCL ¶¶ 288-291. Moreover, it is Professor Shapiro who determined that it was appropriate to compare the

[43] The reference to [[redacted]]. SX PFFCL ¶ 291. In this regard, [[redacted]]. Sirius XM PFFCL ¶ 236; *see also* SX Reply to Google PFFCL ¶ 64.

[[redacted]] with his benchmark rates. Ex. 4094 at 40, 42 & Table 10 (Shapiro Second CWDT). Finally, the conclusion that Spotify rates reflect effective competition is supported by considerable evidence and is [[redacted]] corroborates that conclusion.

B. **Mr. Orszag's Benchmark for Subscription Webcasting Services Is Consistent with *Web IV***

i. **Mr. Orszag Follows the Judges' *Web IV* Ratio Equivalency Model**

Response to ¶ 162. Once again, the Services misquote *Web IV*. *See supra* Resp. to ¶ 21. Although the Services claim that input [B] in *Web IV*'s description of the ratio equivalency equation is "the average per-performance royalty rate paid by subscription interactive services," and [D] is "the per-performance royalty rate for noninteractive subscription services," *Web IV* actually describes input [B] as the "Interactive Subscriber Royalty Rate;" (it does not say "per-performance" rate) and [D] as the "Noninteractive Subscriber Royalty Rate" (again it does not mention "per-performance" rate). *Web IV*, 81 Fed. Reg. at 26338.

Response to ¶ 163. SoundExchange agrees that Mr. Orszag did not use contractual per-play rates in his analysis (as Professor Rubinfeld did in *Web IV*), [[redacted]]. 8/19/20 Tr. 2950:1-6 (Shapiro); 8/20/20 Tr. 3005:16-3006:5 (Shapiro). Further, as explained above, the fact that Mr. Orszag used total revenue and total royalties in the benchmark subscription market for his [A] and [B] inputs is irrelevant, because the ratio of [A]/[B] will be the same whether one uses total revenues and total royalties, per-subscriber revenues and per-subscriber royalties, or per-play revenues and per-play royalties. *Supra* Resp. to ¶¶ 22-23. Similarly, with respect to [C], Mr. Orszag first derived a total royalty payment for the noninteractive services and then divided by total noninteractive service plays to derive a per-play rate, but he could have done it the other way around with precisely the same result. *Id.*

Response to ¶ 164. As discussed in more detail above, *supra* Resp. to ¶ 24, and contrary to the Services' arguments, ratio equivalency as defined in prior decisions is intended to ensure that the target market services pay the same percentage of revenue royalty rate as the benchmark services. *See Web III Remand*, 79 Fed. Reg. at 23115; *Web IV*, 81 Fed. Reg. at 26344; *SDARS III*, 83 Fed. Reg. at 65243 n.137. Moreover, the Judges in *Web IV did* consider the benchmark market percentage of revenue royalty payment, recognizing that Professor Rubinfeld calculated the revenue share paid to the record companies (generally between 55% and 60%), and that Professor Rubinfeld aimed to set a per-play royalty rate for the target market that would pay the record companies the same percentage of revenue. *Web IV*, 81 Fed. Reg. at 26338. Finally, as discussed above at greater length, *supra* Resp. to ¶ 47, converting to a per-play rate at the end of the process instead of the beginning is not "roundabout"—it is in fact the more straightforward approach.

Response to ¶ 165. There is no mystery as to why Mr. Orszag's proposed rates are higher than those proposed five years ago by Professor Rubinfeld. Leaving aside the fact that Mr. Orszag did not make the effective competition adjustment that lowered the rates proposed by Professor Rubinfeld, Mr. Orszag used effective rates for his analysis, while Professor Rubinfeld used contract rates. Ex. 5602 ¶ 77 (Orszag WDT); 8/19/20 Tr. 2950:1-6 (Shapiro). Because [[redacted]], *see* 8/25/20 Tr. 3845:5-21 (Orszag), one would expect the current effective rates to be higher on a per-play basis than the contractual minimum per-play rates on which Professor Rubinfeld relied. Moreover, raising the issue of how the rates proposed by the Participants compare to the *Web IV* rates begs the question of why Professor Shapiro's proposed rates are 40% lower than the current rates, when he too uses subscription interactive services as a benchmark and purports to follow the ratio equivalency approach of *Web IV*.

Response to ¶ 165 (Footnote 23). SoundExchange incorporates its response to ¶ 44.

ii. Mr. Orszag's Use of the Judges' *Web IV* Approach Provides a Reliable Benchmarking Analysis

1. Mr. Orszag Correctly Determined that No Further Adjustment Is Necessary to Account for the Interactive Functionality Available on Mid-Tier Subscription Services

Response to ¶ 166. Mr. Orszag did not further adjust his proposed rates due to the additional functionality offered by mid-tier services because no adjustment was necessary. Although the Services cite Professor Shapiro for the claim that the mid-tier services' average revenue per subscriber "likely" exceeds what statutory services could charge, there is no support for this "likely" result and abundant evidence to the contrary. *See infra* Resp. to ¶¶ 168-69.

Response to ¶ 167. Mr. Orszag, in his written direct testimony, assumed that the modest additional functionality received by Pandora had some value to the services. However, Mr. Orszag went to explain that while additional functionality may have resulted in an increase in subscribers, the key question for royalty purposes is whether additional functionality had the effect of increasing revenue per play or per subscriber. Ex. 5602 ¶ 179 (Orszag WDT); *see also* SX PFFCL ¶¶ 149-50 (providing additional detail). Mr. Orszag further opined that "there is no reason to think that the difference in functionality between Pandora One and Pandora Plus changed the amount of revenue per play or per subscriber." Ex. 5602 ¶ 179 (Orszag WDT). Subsequent to that testimony, [[redacted]] which demonstrates that Mr. Orszag's opinion was entirely correct. SX PFFCL ¶¶ 152-54.

Response to ¶ 168. Contrary to the Services' claims, the record contains solid and reliable evidence about the revenues and play counts for Pandora's Plus service if it dropped its non-statutory functionality. [[redacted]] Two conclusions are evident. [[redacted]] 8/31/20 Tr. 4720:5-8 (Ryan). [[redacted]]. *See* Ex. 5321 at 7.

Second, while the Services claim that the mid-tier services' average revenue per subscriber "likely" exceeds what statutory subscription services could charge given the availability of non-statutory interactive features, [[redacted]]. As SoundExchange has explained, *see* SX PFFCL ¶ 154, and as Mr. Orszag testified at trial, [[redacted]] 8/13/20 Tr. 1959:23-1960:6 (Orszag); SX PFFCL ¶ 154.

In short, [[redacted]], *see* 8/19/20 Tr. 2975:23-2976:3 (Shapiro) ([[redacted]]

[redacted]]), and [[redacted]].

There remains the Services' claim that Mr. Orszag should have considered using the revenues and play counts for Sirius XM's subscription webcasting service to determine whether a further interactivity adjustment is necessary. This is a curious argument, because Professor Shapiro explained at some length why Sirius XM's webcasting service is a poor proxy. The vast majority of Sirius XM subscribers receive webcasting as a bundle with the satellite service, and for those few who do not, non-music content appears to be quite important. Ex. 4094 at 9-10 (Shapiro Second CWDT). Consequently, as Mr. Orszag observed, one would have to make several assumptions about Sirius XM's service to analyze it and isolate out the value of non-music content and bundling with the satellite service. 8/13/20 Tr. 1954:5-24 (Orszag).

Response to ¶ 169. Professor Shapiro's musings about why Pandora did not increase its subscription price when Pandora One became Pandora Plus, or whether it might have reduced the price if it had not obtained additional functionality, are pure speculation. As Professor Shapiro agreed, [[redacted]]. 8/19/20 Tr. 2961:6-17 (Shapiro) ([[redacted]]). Pandora could have offered a witness to fill this evidentiary gap and explain the thinking behind this pricing decision. Tellingly, it did not.

What we are left with are the hard facts that: (1) adding non-statutory functionality in 2016 did not cause Pandora to raise its subscription price; [[redacted]] *See* SX PFFCL ¶ 154. As Mr. Orszag testified, on these facts no further adjustment is necessary. *See* Ex. 5602 ¶¶ 177-78 (Orszag WDT).

Response to ¶ 170. Professor Shapiro admitted that [[redacted]]. 8/19/20 Tr. 2975:23-2976:3 (Shapiro). Yet he departs from that view when he imposes a second interactivity adjustment [[redacted]] Professor Shapiro's second interactivity adjustment should be rejected.

Response to ¶ 171. There is nothing anomalous here. Mr. Orszag's proposed rates follow from the principles of ratio equivalency, which is consistent with Mr. Orszag's analysis of the market. [[redacted]], because lower functionality typically results in lower revenue per unit and thus lower per-unit royalties. Ex. 5602 ¶ 80 (Orszag WDT) (to the extent that services have entered into licenses with the record companies covering multiple tiers of service, the percentage of revenue rates are [[redacted]]); 8/25/20 Tr. 3809:13-25 (Orszag) ([[redacted]]). Stated differently, [[redacted]]. What the Services simply will not acknowledge, [[redacted]].

As noted previously, the [[redacted]]. *See* Ex. 5321 at 3 ([[redacted]]), 7 ([[redacted]]).

[redacted] This result, based on application of Mr. Orszag's rates to a [redacted] service, is perfectly consistent with the ratio equivalency formula, which equates the ratio of revenue to royalties in the benchmark market [redacted].

2. Mr. Orszag's Results Are Consistent with Reasonable and Expected Marketplace Outcomes

Response to ¶ 172. SoundExchange agrees that Mr. Orszag aimed to ensure the target and benchmark services would pay the same percentage of revenue, consistent with the teachings of *Web IV* that "the per-play royalty rate for noninteractive services [D] (*i.e.*, the statutory rate) would also have to provide record companies with the same minimum percentage of revenue out of [C] (the average monthly retail noninteractive subscription price)." *Web IV*, 81 Fed. Reg. at 26338; *see also supra* Resp. to ¶ 24. As shown above, Mr. Orszag's proposed per-play rate does exactly that for [redacted] subscription service. *See supra* Resp. to ¶ 171.

The Judges in *Web IV* recognized that the per-play rates might at times yield a percentage result that deviated from the original benchmark percentage, but did not find this problematic. *See Web IV*, 81 Fed. Reg. at 26326. Indeed, for services whose business model uses music less intensively—for example, services that use a significant amount of non-music content such as simulcasters or Sirius XM—this will result in those services appropriately paying a lower effective percentage of revenue. *Id*. at 26321. But there is nothing wrong with that outcome where music is not the only content input that is generating revenue.

Response to ¶ 173. As discussed in SoundExchange's initial findings, the claimed error in Mr. Orszag's analytic approach—that his results are sensitive to the relative play counts in the interactive and noninteractive markets—was fatally undermined by Professor Shapiro's testimony on cross-examination, when he admitted that Mr. Orszag's analysis is not affected by play intensity in the benchmark market. 8/20/20 Tr. 3010:8-15 (Shapiro); SX PFFCL ¶¶ 120-21. Put simply, Mr. Orszag's analysis is not sensitive to play counts in the benchmark market. Neither was Professor Rubinfeld's analysis. As Professor Shapiro conceded, only his own approach injects the number of plays in the benchmark market into the analysis. 8/20/20 Tr. 3014:23-3015:5 (Shapiro).

Response to ¶ 174. Once again, *see supra* Resp. to ¶ 171, Mr. Orszag's proposed per-play rate will result in [[redacted]] The complaint that services will pay a lower percentage of revenue if they use music less intensively has no merit. Indeed, exactly this situation arose in *Web IV*. There, Professor Rubinfeld calculated his proposed per-play rate to equal the percentage of revenue paid in the benchmark market. *Web IV*, 81 Fed. Reg. at 26338. As the Judges observed, however, simulcasters who used music less intensively due to their use of music content would appropriately pay less. *Id.* at 26321.

Response to ¶ 175. The Services' offer hypotheticals but no evidence. The evidence shows that the service that Mr. Orszag, Professor Willig and Professor Shapiro all use as a proxy for the noninteractive market—Pandora, *see* 8/25/20 Tr. 3834:25-3835:9 (Orszag)—[[redacted]]. *Supra* Resp. to ¶¶ 171-12.

Response to ¶ 176. SoundExchange incorporates its responses to ¶¶ 171-75, *supra*. One thing is certain: The rates proposed by Professor Shapiro do not come close to the goal of ratio equivalency. Services in Professor Shapiro's benchmark market [[redacted]]. Ex. 5602 ¶ 80 (Orszag WDT);

8/25/20 Tr. 3809:13-25 (Orszag). But Pandora's Plus service is expected to [[redacted]], *supra* Resp. to ¶ 171, while Professor Shapiro's benchmark analysis results in a proposed a per-play rate of [redacted] per play. Ex. 4094 at 42 (Shapiro Second CWDT). Thus, Professor Shapiro proposes a rate that represents [[redacted]]—wildly out of line with the requirement that the ratio of revenue to royalties be equivalent in the benchmark and target markets, *Web IV*, 81 Fed. Reg. at 26344, and wildly out of line with the observed effective percentage of revenue rates in the marketplace.

3. There Is No Need for an Effective Competition Adjustment

Response to ¶ 177. SoundExchange incorporates its response to ¶¶ 57-161, *supra*, and reiterates that no competition adjustment is needed based on the record in this proceeding.

4. Mr. Orszag Properly Rejected Consideration of Discounted Plans, and Had He Considered Such Plans His Proposed Rates Would Be Higher

Response to ¶ 178. As Mr. Orszag explained, the interactive subscription services offer a variety of popular and widely-used discount subscription plans, while the target market services for the most part do not. For instance, for interactive subscription services, discount and promotional plays accounted for approximately [[redacted]] of total plays for 2018 and the year ended April 2019, respectively. In contrast, for the Pandora Plus service, discount plays ([[redacted]]) accounted for only [[redacted]] of plays in 2018 and approximately [[redacted]] of plays for the year ended April 2019. Ex. 5603 ¶ 87 (Orszag WRT). [[redacted]] 8/11/20 Tr. 1215:6-16 (Orszag).

Notably, if Mr. Orszag had included Spotify's discount plans in his benchmark analysis, it would have [[redacted]] For the 12 months ending April 2019, the effective percentage-of-revenue rate paid by Spotify was [[redacted]] if calculated using all service plans, compared to [[redacted]] for the individual full price plans that Mr. Orszag relied on. The [[redacted]] effective percentage of revenue rate calculated by including Spotify subscription discount plans would have translated into a rate of [[redacted]] for subscription noninteractive services, and a rate of [[redacted]] for ad-supported noninteractive services. Ex. 5603 ¶ 89 and n.198 (Orszag WRT).

Response to ¶ 179. As noted previously, Professor Shapiro has testified that Sirius XM's webcasting service is an exceedingly poor proxy for other webcasting services, due to the fact that it is most often sold as a bundle with the satellite service, and features substantial non-music content to which users of the webcasting service seem particularly drawn. Ex. 4094 at 9-10 (Shapiro Second CWDT); *supra* Resp. to ¶ 168. Apart from Sirius XM, the Services identify no other noninteractive service that offers discount plans in the way that interactive services do.

C. Professor Willig's Shapley Value Model Is an Appropriate Method to Determine an Effectively Competitive Rate

Response to ¶ 180. Professor Willig's Shapley Value analysis "resembles the real world" by "modeling a marketplace with three must-have major record labels." *See* JPFFCL ¶ 180. The Judges credited precisely such an approach in *Phonorecords III*.

In this paragraph, and throughout their proposed findings, the Services claim that Professor Willig's model is "infected with the effects of complementary oligopoly power," and criticize him for "fail[ing] to make any adjustment for effective competition." JPFFCL ¶¶ 180-81. SoundExchange has explained why such an adjustment is unnecessary, through extensive expert testimony detailing the economics of the Shapley Value model. *See* SX PFFCL ¶¶ 790-99.

As importantly, the Judges have already considered and rejected exactly the argument that the Services advance in this proceeding. In *Phonorecords III*, the Judges held that there was no need to apply exogenous adjustments to the Shapley Value model to derive an effectively competitive rate. 84 Fed. Reg. at 1949. In that proceeding, the Judges considered a Shapley Value model offered by the services' expert, Professor Marx, which was intentionally altered to deviate from a market-based distribution of profits. *Id.* at 1948. Specifically, Professor Marx had modeled all of the services as a single entity, "to countervail the allegedly real market power of the collectives" and thereby "adjust[] the model for [their] monopoly power." *Id.*

The copyright owners' expert, Professor Watt, criticized the need for any such adjustment, observing that "the incorporation of 'all potential orders of the players' in [Marx's] model (as in all Shapley Models) already eliminates the hold-out power of any input provider who might threaten to walk away from a transaction." *Id.* The Judges agreed with Professor Watt. They held that "there is no need to collapse the rights holders into a single bargaining entity to eliminate holdout power by the respective rights holders, because the 'heart and soul' of the Shapley Model is exclusion of the holdout value that any input supplier could exploit in an actual bargain." *Id.* at 1949. The Judges were explicit: "[We] agree with Professor Watt and find that the Shapley Analysis, taking the number of sellers as a given, eliminates the 'hold-out' problem that would otherwise cause a rate to be unreasonable, in that it would fail to reflect effective (or workable) competition." *Id.* at 1950; *accord id.* at 2023 (Strickler, J., dissenting).

Finally, in a clarifying footnote, the Judges observed that while adjustments for market power could be "relevant in a section 801(b)(1) Factor B and C analysis," they are "*not* a consideration when determining a rate that reflects 'effective competition.'" *Id.* at 1950 n.120 (emphasis added). "An effectively competitive rate need not adjust for market power because such a rate does not include consideration of these two factors or their public utility style legislative history antecedents." *Id.*

Response to ¶ 181. The Services have no basis to distinguish *Phonorecords III* and barely try in their proposed joint findings of fact. *See* JPFFCL ¶ 221 (sole paragraph discussing *Phonorecords III*, containing no citations to the determination). Instead, they offer variants of the same critique that the Judges have recently rejected, insisting that the Shapley Value model is incapable within its four corners of eliminating market power that is undue, excessive, or anticompetitive. It is just not true. *See infra* Resp. to ¶¶ 217-23; *see also* SX PFFCL ¶¶ 565-73, 790-818. Indeed, Professor Willig chose the Shapley Value model precisely because the rates in this proceeding should approximate what a willing buyer and willing seller would negotiate in a hypothetical market. 17 U.S.C. § 114(f)(1)(B); *id.* § 112(e)(4). By design, the Shapley Value model generates a royalty rate that "will not exceed the willingness to pay" of the service (ensuring there is a willing buyer) and that will "exceed opportunity costs in the case where there's positive value created" (ensuring there is a willing seller). 8/5/20 Tr. 334:5-25, 385:21-23, 387:1-6 (Willig).

The Services appear to think that their "ace in the hole" argument is a demonstration that the results of Professor Willig's Shapley Value model would have been lower had he "modeled a single monopolist rather than three 'must have' record companies." JPFFCL ¶ 181. As an initial matter, even if the Judges were to credit this argument, it has little bottom-line impact. According to Professor Shapiro, his proposed correction to remove complementary oligopoly power would reduce per-play rates only from [[redacted]] (ad-supported) and from [[redacted]] (subscription). Ex. 4107 at 58, Fig. 10 (Shapiro WRT).

More to the point, the Services' argument is predicated on a misunderstanding of the economic relationship between the upstream market for the licensing of sound recordings and the downstream market in which those sound recordings are distributed and enjoyed by consumers.[44] For the avoidance of doubt, the "upstream market" refers to "the market in which the major record companies negotiate with potential licensees across different modes of distribution." Order at 4 (Dec. 27, 2019). The "downstream market" refers to the market "in which 'the public' is listening to sound recordings that embody musical works." *Phonorecords III*, 84 Fed. Reg. at 2015. The Judges have previously recognized that "the demand upstream for inputs is dependent upon the demand for the final product downstream." *Id.* at 1986; *see id.* (agreeing that "the appropriate upstream rate structure is derived from the characteristics of downstream demand").

As a consequence of this interdependent relationship, the competition between major record companies for "the rights to the big hits and the best selling artists" creates value in the downstream market, expanding the amount of appealing content and thereby generating additional demand for the distributors' services. 8/5/20 Tr. 394:8-16, 396:19-397:4 (Willig). Collapsing the majors into a monopoly would *reduce* that value, shrinking the amount of surplus for the upstream market participants to divide among themselves. *Id.* The Services completely fail to take this dynamic into account when concluding that a one-label monopoly rate would be "lower" than Professor Willig's Shapley Value derived rates (even holding aside that the purported quantitative impact is quite small). As such, their hypothetical is incomplete, one-sided, and uninformative. 8/5/20 Tr. 323:9-13, 397:5-14, 487:16-19, 487:25-488:9 (Willig); 8/26/20 Tr. 3928:2-6 (Shapiro); Ex. 4107 at 56-57 (Shapiro WRT); *see* SX PFFCL ¶ 806-08; *infra* Resp. to ¶ 216.

[44] The Services have revealed their ignorance on this issue before. In opposing a motion to compel, for example, NAB confused the concepts of an "upstream" and "downstream" market and went so far as to profess ignorance as to what these terms even meant. *See* NAB's Opp'n to Mot. to Compel 5 (Dec. 9, 2019) (claiming not to understand a document request referencing the "upstream market"). In rejecting this argument, the Judges noted that NAB's professed ignorance was "meritless" given testimony from their own expert. Order at 4 (Dec. 27, 2019).

Response to ¶ 182. The Services also raise a number of critiques related to Professor Willig's opportunity cost calculation, which are discussed in detail in the following paragraphs. *See infra* Resp. to ¶¶ 191-216 (must have), ¶¶ 232-42 (retention), ¶ 184 (fork in the road). *First*, the Services take aim at Professor Willig's "must have" specification. That specification is supported by a panoply of evidence, not the least of which is the Modified Hanssens Survey. *See, e.g.*, Ex. 5601 ¶ 56 (Willig WRT) (Modified Hanssens Survey shows a [[redacted]] reduction in listening time in response to a label blackout). To counter this evidence, the Services rely almost exclusively on the LSEs, which are riddled with errors and dependent on unsupported adjustments. *See* SX PFFCL ¶¶ 852-962. *Second*, the Services criticize Professor Willig's "retention" specification for independent labels. But the only record evidence on this issue supports Professor Willig's approach, and the Services' alternative is not even consistent with Professor Shapiro's own testimony. *See* 8/20/20 Tr. 3201:20-3202:19 (Shapiro); Ex. 5169 at 3, 6; 8/6/20 Tr. 614:4-11, 615:24-616:12 (Willig). *Third*, the Services dispute Professor Willig's application of the "fork in the road" approach, despite its adoption by the Judges in *SDARS III*. *See* 83 Fed. Reg. at 65231.

Response to ¶ 183. SoundExchange incorporates its response to ¶ 181 *supra*.

Response to ¶ 184. The Services characterize Professor Willig's fork in the road analogy as "glib," apparently failing to recognize that Professor Shapiro takes no issue with this approach, and that the Judges adopted this very concept as "practical and reasonable" in *SDARS III*. *See* 8/20/20 Tr. 3164:7-17 (Shapiro); *SDARS III*, 83 Fed. Reg. at 65231; *id.* at 65238 (quoting and accepting Professor Willig explanation of the approach's merits). The Services provide no evidence to counter the Judges' reasoning in that earlier proceeding (which they do not so much as cite), other than Dr. Leonard's ipse dixit, which is contradicted by Professor Shapiro. 8/20/20 Tr. 3164:7-17 (Shapiro). As in *SDARS III*, the Services have failed to mount anything approaching a serious challenge to this concept, presenting neither evidence nor compelling economic logic. *Id.* Nor have the Services propounded any alternative by which the Judges can "attempt to adjust every rate that fails to reflect market forces," including the rate of $0.00 for terrestrial broadcasts of sound recordings. *Id.* Accordingly, the Services' critique in this paragraph should be rejected.

i. Professor Willig's Specification that the Major Record Companies are "Must-Have" for Noninteractive Services is Reasonable and Well-Supported in the Record

Response to ¶ 185. Before considering the ample evidence that supports Professor Willig's must-have specification (and the very thin evidence that purports to rebut it), it is worth taking a step back to assess the Services' characterization of the majors' market power as "extraordinary," which insinuates that it is ill-gotten, anticompetitive, or otherwise untoward. JPFFCL ¶ 185. This is wrong. The must-have status of the major record companies is not "extraordinary." It is a direct and appropriate reflection of the value these labels would bring to a hypothetical negotiation with noninteractive distributors. 8/5/20 Tr. 482:14-18, 485:16-25 (Willig). That value stems from the extraordinary richness and diversity of the major record companies' catalogs—both old and new—which include essential recordings from artists as varied as Dolly Parton, Elvis Presley, Frank Sinatra, Johnny Cash, Miles Davis, and Prince (SME); U2, Kendrick Lamar, Taylor Swift, Paul McCartney, and Stevie Wonder (UMG); and Ed Sheeran, Cardi B, Bruno Mars, and Lizzo (WMG). Ex. 5613 ¶¶ 6-7 (Piibe WDT); Ex. 5609 ¶ 5 (Harrison WDT); Ex. 5611 ¶ 3 (Adadevoh WDT).

A service that cannot play these artists will not survive. Ex. 5601 ¶ 37 (Willig WRT); 8/5/20 Tr. 469:25-470:11 (Willig). That proposition is both well established and undisputed with respect to simulcasters, Ex. 2150 ¶ 72 n.99 (Leonard CWDT); Sirius XM satellite radio, *SDARS II*, 78 Fed. Reg. at 23063-64; and interactive services, Ex. 1103 ¶ 15(b) (Peterson AWDT). It is equally true of noninteractive non-simulcast webcasters. The Services have presented no credible evidence to the contrary. *See* SX Reply to SXM PFFCL ¶¶ 64-100 (LSEs).

Response to ¶ 186. The "must have" specification for noninteractive services is supported by survey and documentary evidence, concessions from the Services' economists, testimony from label executives, and CRB precedent. *See infra* Resp. to ¶¶ 191-216; *see also* SX PFFCL ¶¶ 585-609. Again, the Shapley Value model does not require an outside adjustment to offset the "complementary oligopoly" power of the major record companies. *See* ¶¶ 180-81 *supra*.

1. The Royalty Rates Derived by Professor Willig's Models Remain Stable Even Absent the Must-Have Specification

Response to ¶ 187. Professor Willig's baseline Shapley Value model specifies that the three majors are must haves and yields per-play rates of [[redacted]] (ad-supported) and [[redacted]] (subscription). SX PFFCL ¶ 690 (citing, *inter alia*, 8/6/20 Tr. 769:18-22 (Willig)). Professor Willig also developed four sensitivity tests showing that, even if the must-have specification is relaxed, both the Shapley Value model and the Nash-in-Nash bargaining model can still yield comparable rates. SX PFFCL ¶¶ 700-09 (citing, *inter alia*, Ex. 5601 ¶ 90 (Willig WRT)).

Response to ¶ 188. In an effort to add some fuel to their otherwise faltering criticism of Professor Willig's "must have" specification, the Services insist that, under Professor Willig's model, "each label retains 100% of its plays in a shut-down scenario." JPFFCL ¶ 232; *see id.* at ¶ 188 ("They never lose a play." (quoting 8/25/20 Tr. 3731:8-17 (Peterson)). This is not true and constitutes a transparent attempt by the Services to set up a straw man. *See* SX PFFCL ¶¶ 833-40.

The Services correctly acknowledge elsewhere in their proposed findings that "a significant number of respondents" to the Zauberman Survey "indicated they would listen to non-music options in the absence of a statutory streaming service." JPFFCL ¶ 268; *see* Ex. 5606 ¶¶ 24, 57, 72 at Fig. 8, 74 at Fig. 9 (Zauberman WDT). Professor Willig took this aspect of the Zauberman Survey into account in his modeling, as he explained at trial. 8/25/20 Tr. 3884:14-3886:13 (Willig). Specifically, he correctly accorded "zero opportunity cost" to respondents who selected only the switching option "do something other than listen to music." 8/25/20 Tr. 3884:14-3886:3 (Willig). And for respondents who indicated they would "do something other than listen to music" and also that they would increase listening to a per-play service, Professor Willig used the time allocation responses to take into account their reduced levels of listening. 8/25/20 Tr. 3885:21-3886:3 (Willig); *see* Ex. 5600, App. E ¶ 16 (Willig CWDT); 8/26/20 Tr. 3969:1-9 (Peterson) ("Dr. Willig does use that information from the survey when calculating his opportunity cost."). At no point did any service economist point to a single calculation in Professor Willig's model or backup to substantiate the claim that he failed to account for non-music listening or that he credited each label with "100% of its plays in a shut-down scenario." JPFFCL ¶ 232. It just isn't true. *See* 8/25/20 Tr. 3884:14 (Willig); SX PFFCL ¶¶ 833-40.

Response to ¶ 189. The Services are not correct that "the must-have assumption alone has huge implications for SoundExchange's proposed rates." According to Professor Shapiro, if Professor Willig's must-have assumption is discarded *and* the incredibly flawed LSEs are fully credited *and* Professor Willig's reasonable retention specification for independent labels is abandoned (with not even a partial accommodation), then the per-play royalty rate derived by the Shapley Value model would be [[redacted]] for ad-supported services. That is [[redacted]] higher than the current statutory rate and [[redacted]] Pandora's proposed rate of [[redacted]]. *E.g.*, 37 C.F.R. § 380.10(a)(1). Similarly, the per-play rate for the subscription service would remain at current levels, which is 50% higher than Pandora's proposed rate of [[redacted]].

Response to ¶ 190. Notably, the rates *do* materially plummet when one not only accepts the above premises, but also adopts Professor Shapiro's preferred bargaining model, Nash-in-Nash. This is ultimately the point of the four sensitivity tests that Professor Willig ran: they demonstrate that royalty rates cluster in the [[redacted]] range unless Professor Shapiro can prevail on almost every one of his assumptions, including the LSEs, the appropriate retention rate, and the bargaining model. SX PFFCL ¶ 1054 (citing, *inter alia*, Ex. 5601 ¶¶ 10, 81 (Willig WRT)). [[redacted]].[45] *See* SX PFFCL ¶¶ 964-79 (citing, *inter alia*, 8/10/20 Tr. 1013:21-1014:8, 1015:19-23 (Willig)).

2. The Must-Have Specification Is Factually Supported And There Is No Meaningful Evidence To The Contrary

Response to ¶ 191. The Services cite only two types of sources in claiming that the "evidentiary record" refutes the proposition that the major record companies are "must-have" to noninteractive webcasters. *See* JPFFCL ¶ 191. First, they cite testimony from Dr. Reiley about the LSEs, which have been thoroughly discredited elsewhere. *See, e.g.*, *infra* Resp. to ¶ 195. Second, they cite testimony from Mr. Diab (and testimony from Dr. Peterson relying exclusively on Mr. Diab's testimony) discussing Google's "Hardware Audio Tier." This evidence is of limited import for the reasons discussed below. *See infra* Resp. to ¶¶ 192, 203-05.

Response to ¶ 192. The fact that Google required [[redacted]] to operate its Hardware Audio Tier thoroughly undermines Professor Shapiro's use of the LSEs. 8/20/20 Tr. 3195:14-3196:22 (Shapiro) (applying LSE results to [[redacted]]). If Professor Shapiro is right, then Google would have felt no compulsion to obtain direct licenses from [[redacted]], prior to launching this tier of service. [[redacted]

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[45] This error is accepted as accurate in the final sensitivity test mentioned by the Services in this paragraph of their findings. *See* Ex. 4107 at 64-65 & Fig. 13 nn.2-3 (Shapiro WRT). The Services do not disclose this fact.

[redacted]], JPFFCL ¶ 203 (quoting Ex. 5053 at 13). This puts the lie to the Services' claim that "no individual record company—no matter how large—is even close to a must-have." *Id.* at ¶ 195.

In addition to contradicting Professor Shapiro's use of the LSEs, the "real-world evidence" concerning Google's Hardware Audio Tier corroborates Professor Willig's "Scenario 1" sensitivity test. Services' JPFFCL ¶ 192. That sensitivity test conservatively assumes that a noninteractive service needs at least two major record companies to be sustainable. *See* Ex. 5601 ¶¶ 12 & n.8, 84-85 & n.149 (Willig WRT); 8/6/20 Tr. 756:13-758:10 (Willig); 8/25/20 Tr. 3853:24-3854:9, 3854:20-25, 3878:10-25 (Willig); *see also* SX PFFCL ¶ 700. Despite that conservative assumption, the sensitivity test produces 2021 royalty rates in line with Professor Willig's baseline model—[[redacted]] per play for ad-supported and [[redacted]] for subscription noninteractive services. SX PFFCL ¶ 700; *see also* 8/25/20 Tr. 3854:6-7, 3855:1-7 (Willig). In sum, the Services cannot credibly argue that a noninteractive service does not need [[redacted]], given the evidence they cite in this proposed finding.

In any event, the evidence about Google's Hardware Audio Tier should be accorded little weight, given Google's repeated representations that the service is fundamentally different from and more limited than other noninteractive services. According to Google, the Hardware Audio Tier is a "*distinct* type of Section 114-compliant service." Google PFFCL ¶ 98 (emphasis added). That is so because, again according to Google, the tier "is voice-controlled and designed for use on Google Home devices, which has *different* functionality and provides a *different* (and *more limited*) user experience than other statutory services." Google PFFCL ¶ 92 (emphasis added). Specifically, the Hardware Audio Tier is "*qualitatively different* than portable services" because it "require[s] that the speakers be plugged into wall sockets and require[s] Wi-Fi, meaning that users are unlikely to use the service in the car or away from the home." Google PFFCL ¶ 96 (emphasis added); *see also* 8/5/20 Tr. 450:5-14 (Willig) ([[redacted]]). Indeed, according to Google, the Hardware Audio Tier is ***so*** different in kind from other statutory streaming services that "buyers are not willing to pay the same amount for that much-more-limited music streaming experience." Google PFFCL ¶ 104.

Finally, Google's own witness acknowledged that the Hardware Audio Tier is not intended to serve as a standalone revenue generator: "Google does not make a profit with the Hardware Audio Tier. Instead, the biggest incentive in offering the service is that it provides a near frictionless (e.g., payment and subscription free) taste of the YouTube Music experience, building habitualization and paving the way for more YouTube Music users and subscription growth." Ex. 1100 ¶ 22 (T. Fowler WDT).

The Services present no credible argument why the Judges should draw global conclusions about the catalog needs of all noninteractive services, based on a niche service they represent is "qualitatively different," offers "different functionality," and presents listeners with a "more limited user experience than other statutory services," and as to which both users and the service itself have fundamentally different expectations. Google PFCCL ¶¶ 92, 96.

Response to ¶ 193. [[redacted]], Ex. 1100 ¶ 31 (Fowler WDT), [[redacted]]. 9/1/20 Tr. 4851:25-4852:5 (T. Fowler). [[redacted]

[redacted]]. 9/1/20 Tr. 4841:9-10 (T. Fowler). [[redacted]].[46] *See* Ex. 5051 at 11 ([[redacted]]), 45 ([[redacted]]); Ex. 5152 at 115 ([[redacted]]).

[[redacted]]. *See* 8/5/20 Tr. 475:2-11, 592:2-4 (Willig) ([[redacted]]). [[redacted]].

Response to ¶ 194. In a last-ditch attempt, the Services also lob in evidence of [[redacted]] that was never mentioned in written testimony and which the Services' witnesses were repeatedly precluded from discussing at trial. JPFFCL ¶ 194 (citing Ex. 1029 and Ex. 1030, on which the Judges reserved, *see* 9/9/20 Tr. 5965:24-5966:2). The Judges should wholly disregard this procedurally defective maneuver.

[46] Again, the notion that Google [[redacted]] thoroughly discredits Professor Shapiro's use of the LSEs and corroborates Professor Willig's "Scenario 1" sensitivity test. *See supra* Resp. to ¶ 192.

[redacted]. 8/25/20 Tr. 3744:22-3746:2 (Peterson). [redacted]. 9/1/20 Tr. 4850:19-4851:6. [redacted] 9/1/20 Tr. 4851:1-4. On the last day of trial, with no witness even on the stand, the Services made a final effort to move Exhibits 1029 and 1030 into evidence under the guise of "housekeeping." 9/9/20 Tr. 5784:6-17.

Both documents remain inadmissible. [redacted], *see* Exhibits 1100-05, [redacted]. 9/1/20 Tr. 4850:8-13. [redacted]. 9/1/20 Tr. 4850:8-13. As such, SoundExchange had no chance to obtain documents that would adequately describe [redacted] or to depose any Google witness about it.

Second, the documents do not come close to complying with the requirement that any "studies or analyses . . . offered in evidence . . . shall state clearly the study plan, the principles and methods underlying the study, all relevant assumptions, all variables considered in the analysis, the techniques of data collection, the techniques of estimation and testing, and the results of the study's actual estimates and tests presented in a format commonly accepted within the relevant field of expertise implicated by the study." 37 C.F.R. § 351.10(e). [redacted]

[redacted]].

Third, the documents are inadmissible hearsay, as they comprise out-of-court statements that the Services expressly offer for the truth of the matter asserted therein. *See* JPFFCL ¶ 194 ([[redacted]]). Nor have the Services laid any foundation for a hearsay exception. Moreover, the "circumstances of preparation indicate a lack of trustworthiness"—[[redacted]]. *See* Fed. R. Evid. 803(6)(E); *Sabre Int'l Sec. v. Torres Advanced Enter. Sols., LLC*, 72 F. Supp. 3d 131, 136 n.3 (D.D.C. 2014) ("[R]ecordings created in anticipation of litigation do not fall within the business records exception." (citing *United States v. Feliz*, 467 F.3d 227, 234 (2d Cir. 2006))); Ex. 1029 ([[redacted]]). [[redacted]].

Holding aside their inadmissibility, the Judges should accord no weight to Exhibits 1029 and 1030. First, [[redacted]]. *See* SX PFFCL ¶¶ 857-79 (citing, *inter alia*, Ex. 5605 ¶¶ 18, 27-28, 48-49 (Tucker CWRT)). Second, [[redacted]]. Ex. 1029 at 11-12, 18; Ex. 1030 at 4 ([[redacted]]). Notably, Professor Shapiro was unwilling to accept the results of the LSEs—which ran for months, [[redacted]]—without making an upward adjustment to account for their short duration. *See* Ex. 4094 at 19, 22-23, Table 3 (Shapiro Second CWDT); 8/19/20 Tr. 2701:3-13 (Shapiro). Relatedly, [[redacted]]. Ex. 1029 at 16 ([[redacted]]); Ex. 1030 at 9. That is to say, [[redacted]]. Ex. 1029 at 8-9; Ex. 1030 at 7. [[redacted]].

Response to ¶ 195. The Services' case against Professor Willig's must-have specification rises and falls with the LSEs. By the Services' admission, the LSEs are the *only* evidence that purportedly support the contention that "no individual record company . . . is even close to a must-have for Pandora." JPFFCL ¶ 195; Ex. 5151 at 7-8; Ex. 5601 ¶ 29 (Willig WRT); 8/5/20 Tr. 476:2-477:9 (Willig). But the LSEs are profoundly unreliable and should be accorded no weight. *See, e.g.*, SX PFFCL ¶¶ 857-79 (improper design), 880-896 (implementation errors), 898-907 (long-run effects), 908-12 (underpowered), 913-16 (not applicable to subscription noninteractive webcasting), 917-20 (do not measure effect of losing [[redacted]]), 921-30 (do not account for downstream costs); *see also supra* SX Reply to SXM PFFCL ¶¶ 64-100.

Response to ¶¶ 196-97. SoundExchange incorporates its response to ¶ 195 *supra*.

Response to ¶ 198. SoundExchange has offered close to one hundred paragraphs of proposed findings of fact and conclusions of law presenting "affirmative evidence to rebut the results of the LSEs," JPFFCL ¶ 198, including an extensive discussion of the many flaws with the

LSEs' methodology that render their results unreliable. *See, e.g.*, SX PFFCL ¶¶ 852-950 (citing, *inter alia*, Ex. 5608 ¶¶ 89-90, App. D (Simonson CWRT); Ex. 5601 ¶ 34 & nn.63-64, App. J at 9 (Willig WRT); 8/5/20 Tr. 590:21-591:10 (Willig)).

In addition, those paragraphs explain how the survey evidence in this case thoroughly refutes the LSEs. *See* SX PFFCL ¶¶ 931-40. Whereas the LSEs purport to identify zero impact on listening hours resulting from the suppression of a record company's catalogs, Professor Hanssens' survey found that 61.8% of respondents would use their ad-supported noninteractive service less under comparable circumstances. SX PFFCL ¶¶ 932-33 (citing, *inter alia*, Ex. 4095 ¶¶ 39, 43 n.50, Table 1 (Hanssens CWDT)). Professor Simonson's modification of that survey fully corroborated this result, finding that 62.4% of respondents would listen less, even when removing the language asking respondents to assume they were "not satisfied" with their service. SX PFFCL ¶ 935 (citing, *inter alia*, Ex. 5608 ¶ 89 (Simonson CWRT); Ex. 5601 ¶ 33 (Willig WRT)).

Finally, as previously noted, the Modified Hanssens Survey asked *how much less* respondents would use ad-supported noninteractive services in the event of a label blackout. SX PFFCL ¶¶ 936-37 (citing Ex. 5601 ¶¶ 32, 34 & App. J at 9 (Willig WRT)). The survey found an overall reduction in listening time that is entirely inconsistent with the LSEs—producing results that are roughly [[redacted]] than Professor Shapiro's "point estimate" reductions. Ex. 5601 ¶ 34-35 & n.64 (Willig WRT); 8/5/20 Tr. 590:21-591:10 (Willig). The Modified Hanssens Survey demonstrates that if users are actually informed that the content available on their ad-supported noninteractive service has been limited due to a blackout, then they would reduce their listening by amounts far in excess of Professor Shapiro's adjusted LSE results. Ex. 5601 ¶ 35 (Willig WRT).

3. Professor Willig's Must-Have Specification Is Factually Supported and Consistent with Past Statements by the Judges

Response to ¶ 199. Prior to the filing of written direct testimony in this case, no participant in any recent rate-setting proceeding before the CRB had seriously challenged the proposition that the major record companies are "must have." As the Judges observed, "[t]here appears to be a consensus that the repertoire of each of the three Majors is a 'must have' in order for a noninteractive service to be viable." *Web IV*, 81 Fed. Reg. at 26373. Professor Willig reasonably started from this premise in his written direct testimony. Notably, the Judges' observation in *Web IV* was not based on conjecture. The Judges cited documentary evidence observing that there is a "disproportionate share of top spins from [the] Majors' repertories," as well as testimony from, for example, Pandora's then-CFO, who testified "that without the repertoire of a Major, [Pandora] would be a much different service." *Id.* Indeed, even Professor Shapiro "declin[ed] to state the majors [were] not 'must haves' for noninteractive services" in *Web IV*. *Id.*; *see also id.* at 26364 (NAB expert acknowledging possibility that the majors are must-haves for custom radio).

Response to ¶ 200. The Services state that there was "no justification" for Professor Willig "to rely on a five-year-old assumption" that the majors are must-have for noninteractive services. JPFCCL ¶ 200. Their timeline is not even right. *Compare Web IV*, 81 Fed. Reg. at 26316 ("This rule is effective on May 2, 2016."), *with* Ex. 5600 at 40 (Willig CWDT) (dated December 11, 2019). More to the point, the Services are engaging in blatant burden-shifting. It is their burden to produce evidence sufficient to dislodge the must-have specification, given its recent acceptance by the Judges. *Web IV*, 81 Fed. Reg. at 26320 (proponent of a change to prior rate determinations "bears the burden of demonstrating" that change is warranted); *see also* JPFFCL ¶ 357.

4. SoundExchange Has Proffered Ample Evidence to Support Professor Willig's Must-Have Specification

Response to ¶ 201. In the course of preparing his written rebuttal testimony, Professor Willig conducted an independent investigation into the must-have specification. *See* Ex. 5601 ¶¶ 30-45 (Willig WRT) (discussing evidence supporting must-have specification, including Services' own survey evidence). Professor Willig did so once he understood that a challenge to that specification was "a major pillar" of the Services' case—a challenge the Services had not mounted in past proceedings. 8/10/20 Tr. 1088:6-9 (Willig); *see Web IV*, 81 Fed. Reg. at 26373. Nothing about this is surprising or untoward. Nor is it surprising that Professor Willig "winds up at the same place" having undertaken this investigation, given the ample evidence supporting the must have specification and the utter paucity of credible evidence on the other side of this issue. *Compare* SX PFFCL ¶¶ 583-609 (summarizing documentary, testimonial, and survey evidence in support of must-have specification), *with* Ex. 5151 at 7-8 (interrogatory response from Services acknowledging that LSEs are the only "documents, communications, and/or evidence" supposedly rebutting the must-have specification as to Pandora).

In their proposed findings, the Services purport to take Professor Willig's evidence blow by blow. [[redacted]]. 8/5/20 Tr. 471:1-9 (Willig). The Modified Hanssens Survey found that 62.4% of respondents would reduce their listening to an ad-supported noninteractive service (by 55.8% on average) if the service "stopped streaming songs by some of [their] favorite artists and some newly released music." Ex. 5608 ¶¶ 89-90, 98, Table 1B, & App. D (p. 80) & App. F, Table 2A (p. 237) (Simonson CWRT); *see also* Ex. 5601 ¶¶ 33-34, 56 (Willig WRT); 8/5/20 Tr. 473:24-474:12 (Willig). In combination, this indicates that [[redacted]]. Ex. 5601 ¶ 34 (Willig

WRT); 8/5/20 Tr. 474:13-17, 474:22-475:1 (Willig); *see also* Ex. 5601 ¶ 34 n.63 (Willig WRT) (explaining why these results likely *understate* the loss of listening that would occur in reality). Professor Willig explained that, [[redacted]] 8/5/20 Tr. 475:19-24 (Willig); *see also* 8/5/20 Tr. 475:2-16 (Willig) ([[redacted]]). The Services have presented no evidence to suggest that any one of their services could survive a [[redacted]] reduction in listenership.

Response to ¶ 202. The Services begin their supposed blow-by-blow assessment of the must-have evidence with documents from Google and Pandora. Notably, these documents thoroughly discredit Professor Shapiro's conclusion from the LSEs that *none* of the major record companies is necessary for a noninteractive service to launch and remain viable. Ex. 4108 ¶ 13 (Reiley WRT); 8/20/20 Tr. 3195:14-3196:22 (Shapiro). The documents lend support to both the must-have specification and the "Scenario 1" sensitivity test. *See infra* Resp. to ¶¶ 203-08.

Response to ¶ 203. The Services open with Exhibit 5053, [[redacted]]. Ex. 5053 at 1, 13. The Services' discussion of this document amounts to a kamikaze mission. The Services observe that the document poses the question "just how *much* content is needed for the service to survive commercially—in other words, what is [[redacted]] JPFFCL ¶ 203. And it answers that question: [[redacted]] *Id.* (citing Ex. 5053 at 13). That is hard to square with Professor Shapiro's conclusion that [[redacted]] for the viability of a noninteractive service. *See supra* Resp. to ¶ 192. While Exhibit 5053 [[redacted]]

[redacted]. That sensitivity test specifies that only [[redacted]] to launch and sustain a noninteractive service. *Id.*; *see* Ex. 5601 ¶¶ 12 & n.8, 84 & n.149, 85 (Willig WRT); 8/6/20 Tr. 756:13-758:10 (Willig); 8/25/20 Tr. 3853:24-3854:9, 3854:20-25, 3878:10-25 (Willig); SX PFFCL ¶ 700. It yields royalty rates in line with Professor Willig's baseline Shapley model. *Id.*

Response to ¶ 204. Elsewhere, Exhibit 5053 states that [[redacted]] Ex. 5053 at 13. Despite providing extensive testimony about the Hardware Audio Tier, neither Mr. Diab nor Mr. Fowler at any point indicated that they explored the possibility of licensing [[redacted]]. *See* Ex. 1101 ¶¶ 12-15 (Diab WDT) (discussing licensing deals related to Hardware Audio Tier); Ex. 1100 ¶¶ 19-22 (Fowler WDT); 9/1/20 Tr. 4828:15-4832:15 (T. Fowler); 9/1/20 Tr. 4876:14-4879:4 (Diab). Licensing [[redacted]] would make little sense given that "the Hardware Audio Tier is Section 114-compliant" and could, as of right, utilize any record companies' sound recordings through the statutory license. Ex. 1101 ¶ 15 (Diab WDT). Notably, the Hardware Audio Tier ultimately launched with the [[redacted]]. Ex. 1101 ¶ 14 & n.9 (Diab WDT); *see* Ex. 1001 at 1; 1006 at 4; Ex. 1010 at 5, 46; Ex. 1011 at 1. [[redacted]] Ex. 5600 ¶ 48, Fig. 7; Ex. 5053 at 13.

Response to ¶ 205. The Services make much of the fact that Google has operated its Hardware Audio Tier for a little over a year [[redacted]]. But, again, Google claims in the same breath that the Hardware Audio Tier is a fundamentally different kind of service and customer expectations of the Hardware Audio Tier are more limited. *See supra* Resp. to ¶ 192 (citing Google PFFCL ¶¶ 92, 96, 98, 104; Ex. 1100 ¶ 22 (T. Fowler WDT)). As such, it is entirely plausible that listeners would be more tolerant of gaps in coverage on Google's Hardware Audio Tier than on other statutory noninteractive services.

What the Services *haven't* explained is why users of noninteractive services, as a category, would be more tolerant of coverage gaps than users of satellite radio or simulcast. The Services cannot and do not dispute that the major record companies are "must have" as to those latter types of service. *See SDARS III*, 83 Fed. Reg. at 26373 ("The evidence in this proceeding strongly demonstrates the 'must have' status of each Major."); Ex. 2150 ¶ 72 n.99 (Leonard CWDT) ("[T]he major labels are 'must haves' for simulcasters."). Yet they advance no theory whatsoever as to why a noninteractive service like Pandora Free could survive the loss of a major record company while other types of linear radio services could not. That is the point of the statement by Professor Willig, which the Services quote out of context in this paragraph. *See* JPFFCL ¶ 205 (quoting Ex. 5601 ¶ 42 (Willig WRT)).

Response to ¶ 206. The Services next turn to two other Google documents, [[redacted]] Both of the documents discussed in this paragraph support Professor Willig's must-have specification. Exhibit 5051 indicates that [[redacted]]. Ex. 5051 at 11, 45; *supra* Resp. to ¶ 193. As with Exhibit 5053, this document [[redacted]]. *See supra* Resp. to ¶¶ 192-93. Exhibit 5152 is equally probative. The Services suggest this is a document generically [[redacted]] JPFFCL ¶ 206 n.32. Not so. In the document, [[redacted]] Ex. 5152 at 115. [[redacted]]

[redacted]] *Id.* [[redacted]].

Response to ¶ 207. According to the Services, any evidence about [[redacted]] This is misguided. At trial, Mr. Fowler explained that [[redacted]] 9/1/20 Tr. 4838:24-4839:1 (T. Fowler). Indeed, he testified that [[redacted]]. 9/1/20 Tr. 4839:14-17 (T. Fowler); Ex. 1100 ¶ 23 (Fowler WDT); *see also id.* § III (discussing both "Google Play Music Ad-Supported Tier" and [[redacted]] in section titled "Noninteractive Music Offerings"). [[redacted]

> [redacted]]

9/1/20 Tr. 4839:19-4840:13 (T. Fowler). Indeed, [[redacted]] 9/1/20 Tr. 4839:2-13 (T. Fowler). Given the acknowledged similarity of the [[redacted]] to a § 114-compliant service, and given its acknowledged *dissimilarities* to an on-demand service, Professor Willig was fully justified in considering [[redacted]] to draw conclusions about the catalog requirements for statutory noninteractive services.

Notwithstanding the testimony from Mr. Fowler concerning the [[redacted]], the Services insist that the service is irrelevant to the discussion because [[redacted]]. JPFFCL ¶ 207 (citing Ex. 5051 at 14). [[redacted]]. Indeed, it is entirely consistent with Mr. Orszag's testimony that there has been a functional convergence between noninteractive and interactive services since *Web IV*, such that the two types of services compete with one another for the same users. Ex. 5602 ¶¶ 57, 71 (Orszag WDT). But the fact that [[redacted]]. 9/1/20 Tr. 4839:1-17 (T. Fowler).

Response to ¶ 208. Pandora documents indicate that [[redacted]]. JPFFCL ¶ 208 ([[redacted]]). But, as Judge Strickler observed, this "begs a question . . . Why is that?" 8/31/20 Tr. 4661:15-16. Mr. Phillips provided an answer that the Services simply ignore: [[redacted]] 8/31/20 Tr. 4661:17-23 (Phillips).

Mr. Phillips' testimony undermines the Services' unsupported argument that, absent a major record company, Pandora [[redacted]] JPFFCL ¶ 208.

Pandora has already determined that these tracks do not [[redacted]] 8/31/20 Tr. 4661:17-23 (Phillips). [[redacted]]. JPFFCL ¶ 208; Ex. 5055 at 46. [[redacted]]. *See* Ex. 5154 at 18 ([[redacted]]); Ex. 5055 at 46 ([[redacted]]); Ex. 5056 at 18 ([[redacted]]).

[[redacted]]. *See* SX PFFCL ¶ 592 (citing, *inter alia*, Ex. 5163 at 2; Ex. 5164 at 1, 2, 4; Ex. 5601 ¶ 40 (Willig WRT); 8/5/20 Tr. 441:7-442:4 (Willig)). The loss of a major record company would entail the loss of great music—whether a number one hit by Lizzo or a timeless classic by Elvis. Ex. 5613 ¶¶ 6-7 (Piibe WDT); Ex. 5609 ¶ 5 (Harrison WDT); Ex. 5611 ¶ 3 (Adadevoh WDT). The Services cite no evidence that Pandora could solve such a problem by swapping in recordings that it previously determined fail to [[redacted]] 8/31/20 Tr. 4661:17-23 (Phillips); *see also* SX PFFCL ¶¶ 596-99.

Response to ¶ 209. Since the outset of this case, the Services have struggled with the fact that two of their own experts have provided testimony in deep tension with the position that no major record company is a "must have" for noninteractive services. *See* Ex. 2150 ¶ 72 n.99 (Leonard CWDT) ("[T]he major labels are 'must haves' for simulcasters."); Ex. 1105 ¶ 114 n.118 (Peterson AWRT) ("Presumably some group of indies together with a major label may be able to shut down a non-interactive service."). The Services offered a tortured exegesis of their own experts' reports, which does nothing to avoid the problem. *See infra* Resp. to ¶¶ 209-14.

Response to ¶ 210. In his written rebuttal testimony, Dr. Leonard stated that "the major labels are must-have for simulcasters." Ex. 2150 ¶ 72 n.99 (Leonard CWDT). There is nothing "selective" about this quotation. Indeed, at this point in the proceeding, the proposition that the major record companies are must-haves for simulcasters stands undisputed by the Services.

Response to ¶ 211. The "full quote" from Dr. Leonard provides "necessary clarifications," but they are not the ones that the Services advance. JPFFCL ¶ 211. First, the full quote explains *why* the record companies are "must-haves" for simulcasters—because simulcasters do not want to respond to a loss of catalog by modifying corresponding AM/FM broadcasts. That shores up rather than erodes Dr. Leonard's proposition that "the major labels are must-have for simulcasters." Second, the full quote shows that Dr. Leonard commits to this proposition regardless of whether it holds true for other types of webcasters: "This is true, even assuming for the sake of argument, that [the majors] are not 'must haves' for other non-interactive services." Ex. 2150 ¶ 72 n.99 (Leonard CWDT). And third, the full quote evidences Dr. Leonard's skepticism that the major record companies are not 'must haves' for other types of noninteractive services—the phrase "even assuming for the sake of argument" suggests he does not endorse that idea.

In *Web IV*, the Judges held that "simulcasters and other commercial webcasters compete in the same submarket and therefore should be subject to the same rate." *Web IV*, 81 Fed. Reg. at 26323. Indeed, "[n]o prior rate determinations [have] treated simulcasters differently from other webcasters." *Id.* at 26320. Because there is not, and never has been, any reason to treat simulcasters as a distinct submarket, there is no reason to believe that "the major labels are must-have for simulcasters" but are *not* must-haves for other types of noninteractive webcasters. *See Web IV*, 81 Fed. Reg. at 26320, 26323; *see* SX PFFCL ¶¶ 1062-1147 (addressing NAB's arguments for a differentiated rate). The Services have had ample opportunity to present some reason why this might be the case but have come up with nothing.

SoundExchange addresses elsewhere the Services' claims about complementary oligopoly power in the noninteractive market. *See, e.g.*, Resp. to ¶¶ 181, 221.

Response to ¶ 212. Dr. Peterson observed that "at least the major labels are 'must haves' for the on-demand services." Ex. 1103 ¶ 15(b) (Peterson AWDT). The Services fail to appreciate this statement's significance. Mr. Orszag has explained that "the distinction between interactive and noninteractive music services has blurred significantly in the past five years," Ex. 5602 ¶ 71 (Orszag WDT); *accord id.* at ¶¶ 58, 67. Evidence from the Services likewise indicates that [[redacted]] Ex. 5061 at 9; *see also* Ex. 5153 at 15, 54. Given the increasing convergence between interactive and noninteractive services, it is increasingly unlikely that the majors would be "must have" for the former but entirely substitutable for the latter.

SoundExchange addresses elsewhere the Services' claims about complementary oligopoly power in the interactive market. *See, e.g.*, SX Reply to Google PFFCL ¶¶ 35-53 (addressing Dr. Peterson's proposed competition adjustment).

Response to ¶ 213. Dr. Peterson also stated that "[p]resumably some group of indies together with a major label may be able to shut down a non-interactive service." Ex. 1105 ¶ 114 n.118 (Peterson CWRT). The Services recognize that this quote is a problem for their arguments, so they torture its obvious intent, JPFFCL ¶ 213 ("Dr. Peterson [is] merely 'presuming' something that 'may' result"), and try to make it say something it does not. *Compare* Ex. 1105 ¶ 114 n.118 (Peterson AWRT) ("some group of indies together with a major label"), *with* JPFFCL ¶ 213 ("the hypothetical he posits . . . requires a major plus every single independent label"). The meaning of the sentence is clear on its face. Dr. Peterson thought it was perfectly reasonable to assume that a major record company plus "some group of indies" can together shut down a noninteractive service. Ex. 1105 ¶ 114 n.118 (Peterson AWRT). As a consequence, Dr. Peterson has no basis to dispute the specification that [[redacted]] are necessary to sustain a noninteractive service—the premise of Professor Willig's "Scenario 1" sensitivity test. *See supra* Resp. to ¶ 192; SX PFFCL ¶ 700. Indeed, no economist has proffered evidence disputing the reasonableness of that specification. *Cf.* 8/20/20 Tr. 3194:1-3, 12-15 (Shapiro) (acknowledging that [[redacted]]).

Response to ¶ 214. SoundExchange incorporates its response to ¶ 213 *supra*.

Response to ¶ 215. The Services do not dispute that the hit recordings of the major record companies are essential to interactive services. Ex. 1090 at 5; Ex. 5163 at 2; Ex. 5164 at 1-2, 4; Ex. 5166 at 5. But they argue that the importance of hit sound recordings "is a point of distinction" between the interactive and noninteractive streaming markets. JPFFCL ¶ 215. This is a bogus proposition with no support in the record. As discussed elsewhere, ad-supported noninteractive services like Pandora Free are [[redacted]]. *See* Ex. 5055 at 46; Ex. 5056 at 18; Ex. 5153 at 35-56; Ex. 5154 at 18; Ex. 5155 at 31; Ex. 5156 at 17; Ex. 5157 at 22; Ex. 5158 at 13. Indeed, [[redacted]] Ex. 5153 at 36. Against this backdrop, it defies belief that popular tracks are unimportant to ad-supported noninteractive services. *See supra* Resp. to ¶ 181.

In addition, there is ample evidence establishing the importance of major label hits to *subscription* noninteractive webcasters—particularly Sirius XM, [[redacted]]. *See* Ex. 5625, App. A ¶ 35 (Bender WDT). Both the Judges and Sirius XM's own witnesses have recognized the importance of major label hits to Sirius XM satellite radio. *See SDARS III*, 83 Fed. Reg. at 26373 ("The evidence in this proceeding strongly demonstrates the 'must have' status of each Major."); *SDARS II*, 78 Fed. Reg. at 23064 (Sirius XM witness: "Sirius XM is very hits driven, and they want to have the most successful service they can, so they're going to use what's popular."). There is no logical or economic reason to think that the hit recordings of a major record company are "must have" for Sirius XM satellite radio but not for Sirius XM subscription noninteractive webcasting. The programming on the two services is largely identical. Ex. 4092 ¶ 23 (Witz WDT). The two services are highly substitutable. *See* Ex. 4095 ¶ 53, Table 4 (Hanssens CWDT) (showing that over 79% of respondents would increase listening to Sirius XM satellite radio if subscription noninteractive service were degraded). And both services are functionally noninteractive, as listeners cannot "select, repeat, skip, or cache specific sound recordings." *SDARS III*, 83 Fed. Reg. at 65245 n.143.

Because the hits matter for Sirius XM, *supra*, and because Sirius XM internet streaming is the largest subscription noninteractive webcaster, Ex. 5625, App. A ¶ 35 (Bender WDT), it was eminently reasonable for Professor Willig to model the major record companies as "must have" for this market segment. The Services have presented no evidence to the contrary and conspicuously declined to even run an LSE on this type of service. Ex. 4094 at 29 (Shapiro Second CWDT) (using the results of the LSEs conducted on ad-supported Pandora "as a proxy" for subscription webcasting).

Response to ¶ 216. Professor Willig's testimony about major label "hits" is relevant in two respects. First, because consumers value access to the "hits" in the downstream market, the record companies who own or control the copyrights to the majority of those hits are "must have" to noninteractive services in the upstream market. 8/5/20 Tr. 482:14-18, 483:24-484:3, 485:5-25 (Willig); *see* Ex. 5618 ¶¶ 18-31, 34 (Gallien WDT); Ex. 1090 at 5; Ex. 5051 at 11, 45; Ex. 5053 at 13; Ex. 5152 at 115; Ex. 5153 at 35, 56; Ex. 5158 at 13; Ex. 5160 at 4; Ex. 5163 at 2; Ex. 5164 at 1, 2, 4; Ex. 5165 at 19; Ex. 5166 at 2, 5. Second, the major record companies' competition to create hit recordings and artists generates additional demand in the downstream market, expanding the surplus for the record companies and distributors to share in the upstream market. *See supra* Resp. to ¶ 181. This value-creating aspect of the competition between the major record companies is completely ignored by the Services in their repeated claims that the majors' "complementary oligopoly" power drives rates above a monopoly rate. *See id.*

ii. Professor Willig's Use of Shapley Values Is Appropriate

1. The Shapley Value Model is Superior to the Nash-In-Nash Bargaining Model in These Proceedings

Response to ¶ 217. In his written direct testimony, Professor Willig used a Nash-in-Nash bargaining model to test the sensitivity of his Shapley Value rates. *See* Ex. 5600 ¶ 61 (Willig CWDT). Nash-in-Nash can be an appropriate way to derive royalty rates in this proceeding—if correctly specified. *See id.* But the Nash-in-Nash bargaining model as specified by Professor Shapiro is decidedly inferior to the Shapley Value model for generating rates under the willing buyer/willing seller standard. *See* SX PFFCL ¶¶ 1023-43; 8/5/20 Tr. 320:4-15 (Willig).

In modeling a bilateral negotiation between a record company and a distributor, Professor Shapiro's Nash-in-Nash model assumes that the distributor has already reached deals with all other record companies. SX PFFCL ¶¶ 1027-28 (citing, *inter alia*, 8/6/20 Tr. 720:16-19, 723:19-22, 725:13-14 (Willig); 8/10/20 Tr. 892:20-25, 893:11-14 (Willig)). This modeling choice has two problematic implications. First, it may fail to produce a stable equilibrium where only two of the majors are "must have." *Id.* at ¶¶ 1035-36 (citing, *inter alia*, 8/25/20 Tr. 3857:11-3858:18 (Willig)); *see also id.* at ¶¶ 1023-41. Second, by consistently treating each record company as the last to negotiate with the distributor, Professor Shapiro's Nash-in-Nash model minimizes the incremental contributions that the record company brings to the table. *Id.* at ¶¶ 1028, 1031 (citing, *inter alia*, 8/5/20 Tr. 320:16-25, 369:1-5 (Willig)). If the record company is not a "must have," then its incremental value as the "last to arrive" will necessarily be diminished—the distributor is imagined to already have access to content from all other record companies. *Id.*

A key virtue of the Shapley Value model is that it avoids this bias. Instead of considering only the circumstance where the record company has minimal leverage because it is the last to arrive, the Shapley Value model averages all possible sequences of arrival. Moreover, the model extends this same benefit to the distributor. 8/10/20 Tr. 1073:25-1074:6, 1074:25-1076:1, 1109:10-1110:12, 1116:13-21 (Willig). That is why the Shapley Value is considered by economists to be consistent with "fairness"—it avoids a perspective that artificially depresses (or inflates) any given party's leverage. Ex. 5600 ¶ 16 n.12 (citing economic literature).

Response to ¶ 218. SoundExchange incorporates by reference its response to ¶ 217 supra. SoundExchange adds only that the Services appear to misunderstand the "cooperative" nature of the Shapley Value model. The Shapley Value model analyzes the value created by every possible subset of bargaining parties. *See* Ex. 5600 ¶ 24 (Willig CWDT); 8/5/20 Tr. 428:14-429:17 (Willig).

But it does not assume that all parties to each subset actually work together, in the sense of collusion or cartelization. 8/5/20 Tr. 335:4-14 (Willig). For instance, in a subset with distributor D, label A, and label B, the Shapley Value assesses the collective surplus created by a deal between A and D, and a deal between B and D. But it does not assume that all three parties collaborate with one another to jointly negotiate these two bilateral licenses. *See* 8/5/20 Tr. 334:1-335:14 (Willig). Nor, as specified by Professor Willig, does the model leave any room for assessing a potential deal between label A and label B, which would raise antitrust concerns and hence is mathematically excluded from consideration. *See infra* Resp. to ¶ 244 (citing, *inter alia*, 8/5/20 Tr. 335:1-14, 337:12-25, 389:8-9 (Willig); 8/6/20 Tr. 744:8-11 (Willig); 8/10/20 Tr. 1067:3-21 (Willig)).

Response to ¶ 219. The Services fail to offer either sound economic theory, or even an internally coherent example, to support their claim that the Shapley Value model is "inappropriate" because it considers "many coalitions that are not directly relevant to the bilateral bargaining at issue." JPFFCL ¶ 219. As to economic theory, the Services press the bogus notion that the Shapley Value model permits "groups of record labels" to "collude to maximize payoffs to their coalition" in certain modeled subsets. JPFFCL ¶ 219. Again, this is not correct—anticompetitive collusion is not permitted in Professor Willig's Shapley Value model. *See, e.g.*, Resp. to ¶¶ 218, 244 (citing, *inter alia*, 8/5/20 Tr. 335:1-14 (Willig)); *see also* SX PFFCL ¶¶ 800-18.

As to their example, the Services ask the Judges to ignore a situation where [[redacted]] and Pandora are negotiating after Pandora has failed to reach a deal with [[redacted]]. JPFFCL ¶ 219. But the Services do not explain why this or comparable situations are "not directly relevant." Indeed, they claim just paragraphs later that exactly such "externalities" should be considered. *See* JPFFCL ¶ 224 (arguing that a bargaining model must consider "the adverse impact on one record company that chooses not to license its music if other record companies do license their music."). The Services' only basis for their claim that the Judges should ignore the hypothesized subset is the notable concession that "it is fully expected that Pandora will sign licenses with [[redacted]] *Id.* [[redacted]]. 8/5/20 Tr. 369:6-10 (Willig); 8/6/20 Tr. 739:22-740:1 (Willig); Ex. 5601 ¶ 13 n.9 (Willig WRT).

Response to ¶ 220. SoundExchange incorporates its responses to ¶ 219 *supra* and ¶¶ 221-23 *infra*.

Response to ¶ 221. The Services claim that *Phonorecords III* does not support Professor Willig's application of the Shapley Value model in this proceeding. But their discussion in this paragraph is noticeably bereft of citations to that decision. Understandably so—the Services have no sound basis to distinguish the Judges' use of the Shapley Value model in *Phonorecords III* with Professor Willig's proposed use of it here. In *Phonorecords III*, the Judges observed that the Shapley Value model, by its very design, does not require an outside adjustment to remove market power and determine an effectively competitive rate. 84 Fed. Reg. at 1948, 1950 n.120. That is totally inconsistent with the Services' claims in this paragraph. *See also* Resp. to ¶ 180 *supra*.

Response to ¶ 222. As noted above, the Shapley Value "incorporate[s] principles of fairness" in the economic sense that it considers a party's incremental contributions in all possible scenarios and thus avoids artificially suppressing or inflating any given party's leverage. *See supra* Resp. to ¶ 217; Ex. 5600 ¶ 16 n.12 (Willig CWDT). Professor Shapiro's Nash-in-Nash bargaining model does not accomplish this. *See supra* Resp. to ¶ 217; SX PFFCL ¶¶ 1023-41. For that reason, the Shapley Value model is more fair than Nash-in-Nash bargaining and provides an accurate assessment of the rates that a willing buyer and willing seller would negotiate in a hypothetical market. 8/5/20 Tr. 311:15-18, 313:15-25, 326:24-327:4, 334:2-25 (Willig).

Response to ¶ 223. SoundExchange incorporates its responses to ¶¶ 243-47 *supra*.

2. The Shapley Value is Superior to Professor Shapiro's Proposed "Myerson Value" Approach, Which Improperly Models Anticompetitive Behavior

Response to ¶ 224. SoundExchange explained in detail in its initial findings why Professor Shapiro's proposed "Myerson" modification to the Shapley Value is unnecessary, inappropriate, and affirmatively inconsistent with the rate-setting task at hand. *See* SX PFFCL ¶¶ 819-32. Most notably, Professor Shapiro's modification introduces transfers of value between competitors that "could easily be an antitrust violation," 8/25/20 Tr. 3873:21-25 (Willig), and hence would "never occur with any degree of legitimacy in markets like the ones that we are working with here." 8/6/20 Tr. 751:13-19 (Willig).

Response to ¶ 225. SoundExchange incorporates its response to ¶ 224 *supra*.

Response to ¶ 226. SoundExchange agrees that the Shapley Value, the Nash-in-Nash model, and what Professor Shapiro calls the Myerson Value "all give the same answer under the view that the majors are all must-haves." 8/25/20 Tr. 320:16-25, 369:2-5 (Willig). SoundExchange disagrees that specifying the major record companies as must-have to noninteractive services is "improper" or "unfounded," for reasons explored at length above. *See supra* Resp. to ¶¶ 191-216.

Response to ¶ 227. SoundExchange incorporates by reference its response to ¶ 224 *supra*.

Response to ¶ 228. The Judges should accord no weight to Professor Shapiro's derivation of royalty rates using what he terms the "Myerson Value." First, Professor Shapiro's "Myerson Value" approach is incomplete, as it ignores certain negative contracting externalities while purporting to consider all of them. Specifically, it does *not* consider negative externalities to the ad-supported service generated by the formation of a subscription noninteractive service, which would tend to draw some audience away from the ad-supported service. 8/25/20 Tr. 3876:4-10 (Willig). Nor does it consider such externalities in the other direction. 8/25/20 Tr. 3876:11 (Willig). "[W]hat Professor Shapiro calls the Myerson Value could be applied to those circumstances also, and that correction for those negative contracting externalities would tend to raise the royalty rates, not lower them." 8/25/20 Tr. 3876:12-17 (Willig).

Second, Professor Shapiro's "Myerson Value" proceeds on the false premises that no major record company is a "must have" for noninteractive services and [[redacted]]. 8/20/20 Tr. 3195:14-3196:22 (Shapiro) ([[redacted]]). The Services have presented no evidence supporting the first premise other than Dr. Reiley's fatally flawed LSEs—and no evidence whatsoever supporting the second premise. Ex. 5151 at 7-8; Ex. 5601 ¶ 29 (Willig WRT); 8/5/20 Tr. 476:2-477:9 (Willig); 8/20/20 Tr. 3194:1-3, 12-15 (Shapiro) ([[redacted]]. Nor did Professor Shapiro run any sensitivity tests showing "Myerson" rates under other conditions (for instance, if a distributor needs only two major record companies to remain viable). That stands in stark contrast to Professor Willig, who showed that royalty rates near his baseline are obtainable even relaxing a variety of assumptions. *See* Ex. 5601 ¶ 90, Fig. 16 (Willig WRT).

Third, the Services have intentionally created an incomplete and one-sided record on the quantitative results obtainable through the so-called Myerson approach. At trial, Professor Willig explained that it was possible to account for negative contracting externalities inside of his Shapley Value model *without* introducing unnecessary anticompetitive transfers of value, such as the ones that infect Professor Shapiro's approach. 8/25/20 Tr. 3867:7-10, 3874:4-21 (Willig); *see also* SX PFFCL ¶ 831. Professor Willig testified that he had run exactly such a model. 8/6/20 Tr. 752:20-

23 (Willig); 8/25/20 Tr. 3874:7-25 (Willig). However, Professor Willig was not permitted to testify about the results. *Id.*; *see also* 8/6/20 Tr. 768:2-8 (Willig). The Judges made that ruling based on the Services' representation that Professor Shapiro was "only offering the Myerson analysis to rebut the testimony from Professor Willig on the Shapley Value." 8/6/20 Tr. 765:14-16, 18-25 (Willig). Because SoundExchange has not had a fair and complete opportunity to rebut Professor Shapiro's "Myerson" rates, and because the Services repeatedly averred that they were not affirmatively advancing that model, 8/6/20 Tr. 763:12-22, 765:8-11 (Willig), the Judges should not use Professor Shapiro's "Myerson" approach as a basis for setting rates in this proceeding.

Response to ¶ 229. The academic literature cited by the Services establishes that "the recursive Nash-in-Nash bargaining solution is the same as the Shapley Value" under the specifications that should apply in this rate setting proceeding. 8/19/20 Tr. 2752:23-2753:2 (Shapiro). The Services insist that is not the case because "contracting externalities" must be considered. JPFFCL ¶ 224. Despite their frequent invocation of this term, however, the Services have utterly failed to illustrate how such externalities actually manifest in the real world of licensing between record companies and distributors, why such externalities would yield significant differences in royalty rates (when divorced from the additional, anticompetitive transfers of value that Professor Shapiro also adds to his model), or even whether the balance of *all* such externalities would drive rates up or down. *See supra* Resp. to ¶¶ 224, 228. Finally, they have failed to establish the key predicate that separates Myerson from Shapley in the first place—that the major record companies are not "must have." 8/25/20 Tr. 320:16-25, 369:2-5 (Willig). The purely speculative "Myerson Value" discussion is a red herring.

iii. Professor Willig Correctly Calculates Record Company Opportunity Cost

Response to ¶ 230. No response.

Response to ¶ 231. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). The Services provide no evidentiary basis to support their claim that "Professor Willig overstates opportunity cost in multiple ways." JPFFCL ¶ 231. As explained below, there is no such basis. *See infra* Resp. to ¶¶ 232-75.

1. The Services Have No Basis to Assert that Professor Willig Credits All Labels With 100% Retention of Plays

Response to ¶ 232. The Services begin their assault on Professor Willig's opportunity cost calculation by reasserting their straw man argument—that he credits each label with "100% of its plays in a shut-down scenario." JPFFCL ¶ 232. As discussed above, this just isn't true and no service economist has pointed to a single calculation in Professor Willig's model to substantiate the claim that he simply ignored diversion to non-music alternatives. 8/25/20 Tr. 3884:14 (Willig); *see* SX PFFCL ¶¶ 833-40; *see also* Resp. to ¶ 188 *supra*.

Response to ¶ 233. The Services next take up a more specific question—whether Professor Willig correctly considered the percentage of plays that *do* divert to other music distribution sources that would be retained by any given label. The Services' criticisms are unfounded.

Because a noninteractive service needs a must-have label to sustain itself in the market (by definition), the loss of a must-have label's content will result in a full loss of plays on the service. 8/5/20 Tr. 342:10-14, 346:1-6, 492:8-11 (Willig). Not all of those plays will necessarily divert to other distributors, as—again—Professor Willig recognized. *Id.* at 492:14-21 (Willig). But of the plays that do divert to other distributors, a blacked-out major label can expect to experience plays at its natural market share. 8/5/20 Tr. 346:12-15 (Willig); 8/6/20 Tr. 612:3-15 (Willig). [[redacted]]. 8/6/20 Tr. 612:3-15 (Willig). There is no indication in Professor Willig's model that a major record company would retain more than its natural market share, let alone "100% of diverted plays," in the event of a shutdown. JPFFCL ¶ 233.

The Services' critique in this paragraph appears to be focused on Professor Willig's specification regarding independent labels, which are not treated as "must haves" in his modeling. When a service loses a label that is not a "must have," the service does not shut down, and only a smaller share of plays are diverted to other modes of distribution. Ex. 5601 ¶ 66 (Willig WRT). Professor Willig accepted as a baseline assumption that, if a noninteractive service blacked out the artists and songs of an independent label, then some people would perceive that gap and respond by seeking out those missing artists and songs elsewhere. *Id.*

The Services portray this as a wild assumption. JPFFCL ¶¶ 233, 236. It is not. Professor Shapiro himself acknowledged that, "in the case where an indie, a particular artist, for example, . . . was not there and the user noticed that as part of their service, then there would be cases where the user would go and seek out that artist's music, particularly if they were a hard-core fan of the artist, for example." 8/20/20 Tr. 3201:20-3202:19 (Shapiro); *see also* 8/6/20 Tr. 614:4-11, 615:24-616:12 (Willig). Record evidence confirms this behavior by music listeners. *See, e.g.*, Ex. 5169 at 3, 6 ([[redacted]]); Ex. 5601 ¶ 66 n.124 (Willig WRT); SX PFFCL ¶¶ 615-19. At trial, Professor Willig made clear that his retention specification for indies does not require each individual mode of distribution to permit full retention of plays by the blacked-out label. 8/6/20 Tr. 815:20-816:7 (Willig). Rather, it only needs to apply "to the totality of the different elements of opportunity cost." 8/6/20 Tr. 821:23-25 (Willig); *see* 8/6/20 Tr. 815:25-816:10 (Willig). In other words, lower retention on satellite radio may be balanced out by very high retention (and even additional substitution to indie labels) via downloads and CD purchases. *Id.* at 815:25-816:17, 822:2-4 (Willig).

Notably, the surveys make clear that the bulk of diversion away from noninteractive services would be to distribution channels where consumers could exercise significant discretion in the content they play. *See* Ex. 5600 ¶ 47, Fig. 6 (Willig CWDT) (higher diversion of respondents to new subscriptions to interactive services, and to new purchases of downloads, CDs, and vinyl, than to new satellite radio subscriptions); 8/6/20 Tr. 816:12-17, 822:5-15 (Willig) (explaining that a listener has "a great deal of ability to focus exactly on what music she is missing from Pandora" when buying digital downloads or when streaming from an on-demand service).

With all of that said, Professor Willig was candid that this is a "simplified assumption" on his part, 8/6/20 Tr. 811:1-3 (Willig), given the lack of "any empirical evidence . . . from any of the parties" speaking to the issue. 8/6/20 Tr. 825:5-12 (Willig); 8/10/20 Tr. 1030:14-19 (Willig). Accordingly, Professor Willig developed sensitivity tests to demonstrate that his results [[redacted]]. 8/6/20 Tr. 619:4-20, 811:4-19 (Willig). Two of those sensitivity tests adopt wholesale Professor Shapiro's approach to retention ratios, yet still generate royalty rates in line with Professor Willig's baseline Shapley Value model. *See* SX PFFCL ¶¶ 698-709; Ex. 5601 ¶¶ 84-90 (Willig WRT); 8/6/20 Tr. 811:4-19 (Willig).

Response to ¶ 234. The Services next pivot from their retention discussion to a critique that Professor Willig has failed to take promotional effects—specifically that "noninteractive services may promote a higher number of plays than other listening alternatives." JPFFCL ¶ 234. But the Services' only support for this proposition is testimony from Dr. Peterson, and *his* only support is the Pandora Label Suppression Experiments. *Id.* (citing Ex. 1105 ¶¶ 119-21 (Peterson AWRT)). As discussed extensively elsewhere, the LSEs should be accorded no weight. *See supra* Resp. to ¶ 195; SX PFFCL ¶¶ 857-930; SX Reply to SXM PFFCL ¶¶ 64-100. And the only quantitative evidence of promotion in this case indicates that ad-supported noninteractive services are substantially less promotional than other modes of distribution; hence, taking relative promotion into account would only increase Professor Willig's opportunity cost calculations. *See infra* Resp. to ¶ 275; SX PFFCL ¶ 521. Finally, the Services repeat their straw man criticism about non-music listening; SoundExchange incorporates its responses to ¶ 188 and ¶ 232 *supra*.

Response to ¶ 235. SoundExchange incorporates its responses to ¶ 188 and ¶ 232 *supra*.

Response to ¶ 236. SoundExchange incorporates its response to ¶ 234 *supra*.

Response to ¶ 237. The Services open this paragraph with the following meaningless sentence: "Assuming 100% retention of plays for a non-essential, independent label is not supportable or economically rational as a factual matter because a noninteractive service that is still operating could simply shift plays to other music." JPFFCL ¶ 237. This sentence has no content because Pandora can choose what to play regardless of a label's blackout and regardless of listeners' reactions to it. It is listeners' reactions that underlie the distinct economic concepts ignored by the Services' opening sentence—substitutability of content, loss rate, and retention.

There is no dispute among the economists that a noninteractive service would respond to the blackout of an independent label by shifting plays to other content. 8/5/20 Tr. 402:18-403:3 (Willig). Indeed, the premise of the idea that independent labels are *not* "must have" is that they *can't* shut down a service, because the service can substitute that label's content and remain viable. *See* Ex. 5600 ¶ 31 (Willig CWDT); 8/6/20 Tr. 791:20-24, 792:19-793:11, 795:2-24 (Willig). But this fact has no bearing on whether or to what extent the noninteractive service would experience a loss of plays were it to black out a label. Clearly that would depend on whether anyone cared about the content that was blacked out. If listeners did care—because the label featured "some of your favorite artists and some newly released music"—then the Hanssens and Modified Hanssens

Surveys make clear that there would be some concomitant diversion of plays. *See* Ex. 4095 ¶¶ 33, 39 (Hanssens CWDT); *see generally* Ex. 5608 (Simonson CWRT).

In addition to having no bearing on whether plays would be lost, the Services' observation that a noninteractive service could substitute for plays of a non-essential label has even *less* bearing on whether and to what extent diverted plays would remain plays of the blacked-out label—the concept of "retention." The Services do not attempt to explain the connection.

Response to ¶¶ 238-39. SoundExchange incorporates its response to ¶ 233 *supra*.

Response to ¶ 240. The Services claim that "[t]he 100% retention assumption in Professor Willig's model assures that a label is unlikely to face significant losses by walking away from a license with a statutory service." JPFFCL ¶ 240. This sentence contains at least two errors (in addition to its failure to acknowledge that Professor Willig's Shapley-derived rates are robust to changes to his baseline retention specification, *see* Ex. 5601 ¶ 90, Fig. 16 (Willig WRT)). First, it conflates Professor Willig's treatment of retention for indies with his treatment of retention for must-have majors. As noted, Professor Willig models the latter category as retaining their natural market share of diverted plays, not 100%. 8/5/20 Tr. 346:12-15 (Willig). Second, this sentence again ignores the fact that Professor Willig fully credited the Zauberman Survey results indicating that a significant portion of plays lost by a noninteractive service would divert to *non-music* activities and hence would not reappear as plays on another distributor. *See supra* Resp. to ¶ 232 (citing, *inter alia*, 8/25/20 Tr. 3884:14-3886:13 (Willig)). On the basis of these two errors, the Services reach the unsupported conclusion that Professor Willig's retention specifications "assure that a label is unlikely to face significant losses by walking away from a license." JPFFCL ¶ 240.

From here, the Services build to another unsupported conclusion—that Professor Willig's model is designed to generate results that "are not competitive" and ensure that "the labels have all the power in a hypothetical negotiation." JPFFCL ¶ 240. This is inconsistent with the Judges' holding in *Phonorecords III* that the Shapley Value is an appropriate way to model an effectively competitive rate. 84 Fed. Reg. at 1950 ("The Judges agree with Professor Watt and find that the Shapley Analysis, taking the number of sellers in the market as a given, eliminates the 'hold-out' problem that would otherwise cause a rate to be unreasonable, in that it would fail to reflect effective (or workable) competition."); *accord id.* at 2023 (Strickler, J., dissenting). Inconsistency with precedent aside, the Services are simply mistaken. At trial, Professor Willig explained in exacting detail how the Shapley Value model averages together all possible arrival orderings in a negotiation, and in doing so credits each party with their valuable contributions to a bargain—including the distributor. *See, e.g.*, 8/10/20 Tr. 1073:25-1074:6, 1116:13-21 (Willig). As Professor Willig explained, if the distributor "is not at the table or is not willing to deal, then there's no proceeds to any of the labels," whereas if it does participate, then "all of a sudden the service is up and running." *Id.* The Shapley Value therefore accords both labels and distributors an *equal* opportunity to function as "must haves" to consummate a value-creating deal. 8/10/20 Tr. 1074:25-1076:1, 1109:10-1110:12 (Willig).

In a footnote, the Services attempt and fail to disprove the feature of symmetry inherent to the Shapley Value. *See* JPFFCL ¶ 240 n.34. Specifically, they attempt to paint the hypothetical negotiation as a David vs. Goliath situation (in which the Services would go out of business, but the record companies would simply lose a little revenue, should the negotiation fall through). *See* JPFFCL ¶ 240 n.34. This is both wrong and irrelevant. It is wrong because both Sirius XM and iHeartMedia are massive companies, neither of which depend for their survival on their relatively small noninteractive Internet streaming services. *See, e.g.*, Ex. 5046 at 28 (Sirius XM 2018 10K: $5.8 billion total revenue); *see also* Ex. 2178 at 6 ([[redacted]

[redacted]]); Ex. 4092 ¶¶ 7, 11 (Witz WDT) ("[S]treaming audio has historically played an ancillary role in our business."). There is absolutely no record evidence proving that these companies would go under if they could not license sound recordings for their noninteractive webcasting services. It is irrelevant because effective competition has nothing to do with ensuring a service's ongoing survival. *Web IV*, 81 Fed. Reg. at 26329 ("[T]he statute neither requires nor permits the Judges to protect any given business model proposed or adopted by a market participant."); *see also Web III Remand*, 79 Fed. Reg. at 23123. Put differently, the notion of effective competition does *not* require the Judges to prop up business models that add little value to the sound recording distribution marketplace.

Again, the "symmetric power" inherent to the Shapley Value is the ability of either the distributor or the record company to abstain from participation and, in doing so, prevent the creation and sharing of surplus. 8/10/20 Tr. 1109:8-18, 1116:13-21 (Willig). Professor Willig's model is thus agnostic as to the relative bargaining power of the record companies or the noninteractive services.

Ultimately, the Services' attempt to attack Professor Willig's model as asymmetric is a disguised effort to attack the model's *empirical results*, which the Services are unable to disprove on their own terms. Those results prove that noninteractive services are substantially less value-creating than the record companies. 8/10/20 Tr. 1109:10-1110:12 (Willig); *see* SX PFFCL ¶ 570. But these results flow not from the theoretical design of the Shapley Value model, but rather from empirical inputs such as the opportunity costs and value created by each party. *See, e.g.*, SX PFFCL ¶¶ 649-79 (willingness to pay discussion).

The Services close out an already confusing and error-riddled paragraph by invoking the Judges' past rulings concerning steering (the ability of a noninteractive service to bargain for lower rates by reducing a given label's share of plays). For the avoidance of doubt, SoundExchange does not dispute that, in past proceedings, the Judges have held that steering is one hallmark of effective competition. JPFFCL ¶ 240 (citing *Web IV*, 81 Fed. Reg. at 26356). But the Services do not attempt to explain how steering bears on the discussion at hand. As Professor Willig explained at trial, the characteristic function in the Shapley Value model is designed to reflect the maximum possible value obtainable through any given subset of players. 8/10/20 Tr. 1071:20-1072:7 (Willig). The characteristic function does not contemplate non-optimal, non-value-maximizing arrangements, of the sort that would occur if a service were to "back off of what's the optimal playlist from the point of view of what's appealing to the listeners." 8/10/20 Tr. 1071:25-1072:3 (Willig). But this does not render the Shapley Value model inconsistent with effective competition. *See Phonorecords III*, 84 Fed. Reg. at 1948, 1950 n.120. To the contrary, the most extreme form of steering—a label blackout—is already built into Professor Willig's Shapley Value model, which as a result bakes in this feature of effective competition. 8/10/20 Tr. 1070:19-1071:17 (Willig).

Response to ¶ 241. Contrary to the Services' unsupported and unexplained assertion, it is not "counterintuitive" that independent labels would have the same opportunity cost as must-have major labels. In fact it makes sense. There is no reason why users would divert to different sources of distribution depending on whether a blacked out label is independent or major, nor do the Services provide any evidence indicating that the royalties generated by those outside sources of distribution would differ. The Services do not dispute that, if a major record company were a must have and were blacked out on a noninteractive service, diverted plays would shift to other distributors in proportion to the market share of each record company. *See, e.g.*, 8/19/20 Tr. 2792:6-15 (Shapiro). So once again, this claim bottoms out in the Services' objection to Professor Willig's specification that independent labels would retain a proportion of diverted plays higher than their market share, because users would seek out artists and songs missing from their still-operational noninteractive service. The Services have provided no evidence supporting their ipse dixit that this is "counterintuitive," the record evidence on this issue supports SoundExchange, and even Professor Shapiro acknowledges there is some truth to Professor Willig's approach. *See supra* Resp. to ¶ 233; *see also* SX PFFCL ¶¶ 615-19; 8/20/20 Tr. 3201:20-3202:19 (Shapiro).

Nor is there any truth to the Services' suggestion that their experts have run sensitivity tests showing that changing Professor Willig's retention ratio specification "leads to exponentially lower 'fall back' values for most labels." JPFFCL ¶ 241. The cited figure from Professor Shapiro's testimony purports to show that changing *numerous* inputs would drop derived *royalty rates* from [[redacted]] to [[redacted]] (ad-supported) and from [[redacted]] to [[redacted]] (subscription). Ex. 4107 at 67, Fig. 15 (Shapiro WRT). That figure does not isolate the significance of the retention ratio specification. The cited figure from Dr. Peterson's written rebuttal testimony is even less on point, as it shows the difference in opportunity cost when "all labels are non-essential." Ex. 1105 ¶ 109, Fig. 8 (Peterson AWRT). That is to say, it purports to show the impact of Professor Willig's must-have specification, not his independent label retention rate specification.

Response to ¶ 242. Notably, Professor Shapiro testified that he was unwilling to deviate even modestly from his assumption that the retention rate for a label equals its natural market share. *See* 8/19/20 Tr. 2790:23-2791:3, 2793:1-7 (Shapiro). [[redacted]]. 8/6/20 Tr. 613:20-614:11 (Willig). This is an extreme position that does not line up with the factual record or Professor Shapiro's own admissions. 8/20/20 Tr. 3201:20-3202:19 (Shapiro) (acknowledging that "there would be cases where the user would go and seek out that artist's music, particularly if they were a hard-core fan of the artist, for example"); Ex. 5169 at 3, 6; Ex. 5601 ¶ 66 n.124 (Willig WRT); SX PFFCL ¶¶ 615-19.

By contrast, Professor Willig did run sensitivity tests to assess the importance of his baseline retention ratio specification. *See* Ex. 5601 ¶ 90, Fig. 16 (Willig WRT). For example, his "Scenario 1" sensitivity test adopted Professor Shapiro's "retention ratio" assumption and his "power ratios," and assumed that noninteractive distributors need two but not three majors. *Id.*; *see* SX PFFCL ¶ 708, Fig. 15. Using these inputs, the Shapley Value model produces per-play royalty rates in line with Professor Willig's baseline model: [[redacted]]. Ex. 5601 ¶¶ 12 & n.8, 84-85 (Willig WRT); 8/6/20 Tr. 756:13-758:10 (Willig); 8/25/20 Tr. 3853:24-3854:9, 3854:20-25 (Willig). Professor Willig's "Scenario 1" contradicts the Services' contention in this paragraph that "Professor Willig claims that the must have assumption does not matter only because he unrealistically assumes all labels are awarded 100% of their plays in a walk-away scenario regardless of must-have status." JPFFCL ¶ 242. In Scenario 1, Professor Willig's must-have specification and retention specification are *both* replaced.

Scenario 1 is not the only sensitivity test in which Professor Willig varies his retention rate specification. In Scenario 3, Professor Willig again adopted Professor Shapiro's retention rate assumption, and also used Professor Shapiro's preferred modeling approach, Nash-in-Nash. Ex. 5601 ¶ 88 (Willig WRT). Professor Willig went even further in this scenario, dispensing with the must-have specification altogether. *Id.* This scenario, once again, yields per-play royalty rates in line with Professor Willig's baseline model: [[redacted]].

At trial, Professor Willig was asked point blank whether his royalty rates require rejecting Professor Shapiro's assumption about retention. He was clear: [[redacted]] 8/6/20 Tr. 619:5-

20 (Willig); *see also* SX PFFCL ¶¶ 700-03, 706 (providing additional detail about Scenario 1 and Scenario 3 sensitivity tests).

2. The Services Profoundly Misunderstand Professor Willig's Shapley Value Model In Claiming that It Permits Collusion Among Labels

Response to ¶ 243. In stating that the Shapley model allow players to "work together," the Services insinuate that it enshrines collusive behavior among coalitions. This is wrong and inconsistent with the Judges' prior descriptions of this bargaining model. As the Judges have explained, "[t]he Shapley value approach . . . models bargaining processes in a fair market by considering all ways each party to a bargain would add value by agreeing to the bargain." *Phonorecords III*, 84 Fed. Reg. at 1947 (quotation marks omitted). It is "designed to model the outcome in a hypothetical 'fair' market environment. It is closely aligned to bargaining models, when *all bargainers are on an equal footing* in the process." *Id.* (quotation marks omitted).

Response to ¶ 244. The Shapley Value model does not assume "situations where multiple labels work together to achieve a common outcome." JPFFCL ¶ 244. Professor Willig—who has served as the chief economist for the Antitrust Division of the U.S. Department of Justice—explained why, at some length. He explained that, for any given subset of parties modeled by the Shapley Value, there are "ground rules . . . built into the characteristic function about what kinds of activities and deals will be allowed for [the] maximization" of value. 8/5/20 Tr. 337:12-25 (Willig). Specifically, while "the Shapley Value is about deals that are made or can be made so as to create a sustainable and gainful overall enterprise," the algebra underlying the characteristic function value does not permit record companies in any given subset to engage in "anticompetitive collusion or even anticompetitive cooperation." 8/5/20 Tr. 335:1-14 (Willig); *accord* 8/5/20 Tr. 389:8-9 (Willig); 8/6/20 Tr. 744:8-11 (Willig); 8/10/20 Tr. 1067:3-21 (Willig).

Professor Willig's simple patent example, which he presented in his written testimony and at trial, shows why there is no room in his Shapley Value model for collusive behavior that would trigger concerns under antitrust law. Figure 1 from his written direct testimony, reproduced below, shows that the characteristic function of the subset of patent owners A and B is nothing more than the sum of each party's fallback value: $5 + $5 = $10. A and B operating together are not presumed to engage in cartelization or collusion such that they can extract additional value from licensees.

Figure 1: Example of Characteristic Function

Subset	Characteristic Function Value for Subset
No parties	$0
deviceD manufacturer ("D")	$0
patentA owner ("A")	$5
patentB owner ("B")	$5
A and B	$10
A and D	$5
B and D	$5
A, B, and D	$22

Ex. 5600 ¶ 19, Fig. 1 (Willig CWDT).

Contrast that to the hypothetical presented by Dr. Peterson:

Figure 6
Example of Characteristic Function

Coalition	Value
Label A ("A")	$375
Label B ("B")	$375
Distributor D ("D")	$0
A and B	$1,500
A and D	$1,250
B and D	$1,250
A, B, and D	$2,500

Ex. 1105 ¶ 94, Fig. 6 (Peterson AWRT). In Dr. Peterson's hypothetical, the subset "A and B" experiences substantially more value than just the sum of the fallback value for each of A and B: $375 + $375 ≠ $1500. Dr. Peterson's example appears to be intentionally rigged to show additional value from two parties "acting as a cartel." Ex. 1105 ¶ 117 (Peterson AWRT). But, as illustrated above, this problem is nowhere evident in Professor Willig's construction of the Shapley Value model. In short, Dr. Peterson's Shapley Value example is a straw man.

Notably, there *is* a variant of the Shapley Value model that creates antitrust concerns under the law cited by the Services in this paragraph. That variant is put forward by Professor Shapiro under the name "Myerson Value." At trial, Professor Willig detailed why the mathematics behind Professor Shapiro's Shapley variant lead to anticompetitive transfers of value that could be unlawful in the real world. *See* SX PFFCL ¶¶ 821-30 (citing, *inter alia*, 8/25/20 Tr. 3868:12-3871:20 (Willig)); *see also* 8/6/20 Tr. 751:6-19 (Willig). Professor Willig's model avoids these anticompetitive concerns.

Response to ¶ 245. SoundExchange incorporates its response to ¶ 244 *supra*.

Response to ¶ 246. The Services suggest in this paragraph that Professor Willig "made efforts to downplay the Nash-in-Nash model that he original championed." JPFFCL ¶ 246. This is misleading. In his written direct testimony, Professor Willig clearly put forward the Shapley Value model as his primary approach, and presented (at the end of his report) some "alternative calculations using a Nash-in-Nash bargaining model." Ex. 5600 at 2 (Willig CWDT); *see id.* at ¶ 61 ("I apply this alternative approach to further test the sensitivity of my Shapley Value results."). Professor Willig did not then and does not now "champion[]" Nash-in-Nash over the Shapley Value for purposes of determining royalty rates in this proceeding. *See also* JPFFCL ¶ 180 (acknowledging that Shapley is Professor Willig's "primary model").

Nor is there any merit to the contention that Professor Willig has "downplay[ed]" Nash-in-Nash because the Services' economists have "demonstrated how . . . it could be corrected to achieve more competitive results." JPFFCL ¶ 246. To the contrary, Professor Willig has presented *four* different iterations of a Nash-in-Nash bargaining model, demonstrating that a variety of inputs can be changed without materially lowering the resulting rates. *See* Ex. 5600 ¶¶ 61-67 (Willig CWDT); Ex. 5601 ¶¶ 86-89 (Willig WRT). Professor Willig made clear at trial that Nash-in-Nash only produces the rock-bottom royalty rates advanced by the Services when all of the Services' assumptions—about loss rate, diversion, retention, and opportunity cost—are accepted as true. *See* 8/5/20 Tr. 369:24-370:10 (Willig); Ex. 5601 ¶¶ 10, 81 (Willig WRT).

Notably, the economist who *has* championed Nash-in-Nash from the get-go—Professor Shapiro—appeared to noticeably distance himself from that approach by the end of trial. *Compare* 8/6/20 Tr. 765:9-11 (statement from Services' counsel that Professor Shapiro's "primary testimony is based on his Nash-in-Nash model"), *with* 8/26/20 Tr. 3938:16-19 (Shapiro) (testifying that "you have to use" the Myerson Value "instead of Shapley or Nash-in-Nash").

Response to ¶ 247. SoundExchange incorporates its responses to ¶¶ 180-81, 218-19, and 243-44, *supra*. Contrary to the Services' representation, at no point in the trial did Professor Willig testify that "the opportunity for collusion within his Shapley model is not material due to different orderings of the players." JPFFCL ¶ 247. Professor Willig was more definitive: Within his model, the opportunity for collusion *does not exist*. *See* 8/5/20 Tr. 389:5-390:11 (Willig); *see also* SX PFFCL ¶¶ 806-18.

3. Professor Willig's Decision to Model All Independent Labels as a Single Entity Had No Effect On His Opportunity Cost or Royalty Rate Calculations

Response to ¶ 248. No response.

Response to ¶ 249. In specifying his Shapley Value model, Professor Willig made a choice to aggregate the "very, very many independent record companies" into "one amalgam party to the negotiations," in order to "make the model understandable and practical." 8/5/20 Tr. 321:25-322:3 (Willig); *see* Ex. 5625, App. A ¶ 6 (Bender WDT) (noting that approximately 110,000 record companies and copyright owners receive distributions from SoundExchange); 8/5/20 Tr. 398:17-18 (Willig). But Professor Willig was careful to explain that the indies "don't operate collectively in this model" and "it's not that there's some sort of a cartel among the indies." 8/5/20 Tr. 398:12-17 (Willig). "[T]he idea is that the amalgam should not be given any degree of power or even influence beyond that of each of its constituent parts. It's just a handy tool to aggregate without imbuing the aggregation with any additional economic characteristics, beyond the characteristics that apply to each of the pieces, which when summed together become the amalgam." 8/10/20 Tr. 1106:15-22 (Willig). Indeed, "they're not even collectively a must-have the way I modeled them." 8/5/20 Tr. 398:13-14 (Willig).

Given how he amalgamated the indies, Professor Willig's modeling choice did not change his results. 8/5/20 Tr. 393:7-16 (Willig). When Judge Strickler asked if the results of the model changed only "slightly" but not "directionally," or if they didn't change "because of a rounding issue," Professor Willig was clear. 8/5/20 Tr. 393:11-13 (Willig). The aggregation of the indies did not change the results "at all." 8/5/20 Tr. 393:14-16 (Willig). He reaffirmed, in response to a question from Judge Ruwe, that even if the indie amalgam "was exploded into . . . hundreds or thousands of individual record companies, . . . the result would be the same." 8/5/20 Tr. 401:3-9 (Willig). Again, this follows logically from the fact that Professor Willig modeled the indie amalgam as a mathematical aggregation of the value each indie would bring to the negotiation. 8/5/20 Tr. 393:19-23 (Willig). Had Professor Willig accorded the amalgam additional value (through the indies "acting in concert," or through elevated "market power" from their collectivization, JPFFCL ¶ 249), then the results would not be identical. But that's not what he did. The testimony cited by the Services in this paragraph says nothing to the contrary. *See* 8/5/20 Tr. 321:4-322:8 (Willig).

Response to ¶ 250. Professor Willig's retention specification for independent record companies was reasonable, and in any event is not critical for his bottom-line results, for reasons discussed in SoundExchange's response to ¶ 233 *supra*. Professor Willig's decision to consolidate the independent labels in his Shapley Value model did not affect his rates at all, for the reasons discussed in SoundExchange's response to ¶ 249 *supra*.

Response to ¶ 251. SoundExchange incorporates its responses to ¶¶ 244, 249 *supra*. SoundExchange also notes that Dr. Peterson's view of a "properly modeled" Shapley Value model is skewed, as he wrongly believes that such a model would "allow[] inessential labels" to "achieve . . . more than their independent values." *See* 8/25/20 Tr. 3731:18-25. For all the reasons explained above, Professor Willig's model does not allow that.

4. Professor Willig's Interpretations of the Zauberman Survey and Share of Ear Data Were Reasonable and the Services Offer No Evidence to the Contrary

Response to ¶ 252. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). SoundExchange also disagrees with the Services' characterization of the alleged "problems and inconsistencies" in the Zauberman Survey, and addresses these issues as they arise elsewhere. *See infra* Resp. to ¶¶ 288-302.

Response to ¶ 253. The Services claim that Professor Willig's opportunity cost results are inflated because of his "self-serving" assumptions about the Zauberman Survey results. SoundExchange disagrees, for the reasons set forth below. *See infra* Resp. to ¶¶ 254-69.

Response to ¶ 254. The Zauberman Survey asked respondents whether they had listened to CDs, vinyl, and MP3s within the past 30 days. *See* Ex. 5606 ¶¶ 51, 54 (Zauberman WDT); 8/27/20 Tr. 4181:5-4182:19 (Zauberman) (explaining that "the way our memory works is that we need to have a fixed amount of time, not too long" and 30 days "happens to be an industry standard"). Professor Willig treated respondents who said they *had not* listened to such media within the past 30 days and who indicated they would shift listening in this direction as new purchasers of CDs, vinyl, and digital downloads. But Professor Willig treated respondents who said they *had* listened to this form of media within the past 30 days and who indicated they would shift listening in this direction as making *zero* incremental purchases—"those people are not counted at all." 8/6/20 Tr. 844:3-20 (Willig).

Professor Willig openly acknowledged that both of these assumptions could be inaccurate. It could be that an individual who has not listened to a CD in the past 30 days would respond to a loss of Pandora by pulling her old CD collection out of the closet—"that would be an inaccuracy." 8/6/20 Tr. 843:20-844:1 (Willig). But it could also be that an individual who has listened to a CD within the past 30 days would respond to a loss of Pandora by listening to her existing collection and supplementing it with new purchases of new releases—a "concomitant inaccuracy that goes in the other direction." 8/6/20 Tr. 844:2-25 (Willig). At trial, Judge Strickler asked Professor Willig whether these scenarios, which "two inaccuracies that arguably could have pointed in opposite directions," simply "make a mess or hash of the survey results." 8/6/20 Tr. 845:5-25 (Willig). Professor Willig explained that the "the degree of inaccuracy in these two different contrasting directions." On that score, Professor Willig observed that "literally more than half" of respondents in this category indicated they had listened to CDs, vinyl, and digital downloads within the past 30 days—and these respondents were "not counted at all as providing additional royalties through what might be their additional purchases." 8/6/20 Tr. 846:7-13 (Willig); *see* Ex. 5606 ¶ 69, Fig. 7 (Zauberman WDT). As such, "it seems quite likely that the balance of these two forces is on the conservative side" and introduces, at most, a "conservative bias." 8/6/20 Tr. 846:1-17 (Willig). For these reasons, there is no sound basis for the Services' argument that Professor

Willig overstates respondents' new purchases of CDs, vinyl records, and MP3s through his interpretation of the Zauberman Survey results. *See* SX PFFCL ¶¶ 777, 780-82.

Finally, the Services misleadingly suggest that Professor Willig conceded it was "an inaccuracy" to treat respondents who would purchase new CDs, vinyl, and digital downloads as spending the same as the average purchaser of these media. JPFFCL ¶ 254. Professor Willig made no such concession, and his testimony about an "inaccuracy" was limited to the issue just discussed. *See* 8/6/20 Tr. 843:20-844:2 (Willig). This aspect of the Services' critique is addressed in more detail below. *See infra* Resp. to ¶¶ 273-74.

Response to ¶ 255. The Services level three critiques in this paragraph. As to whether Professor Willig should have considered respondents' existing collections, SoundExchange incorporates its response to ¶ 254 *supra*. As to whether Professor Willig failed to consider whether the survey respondents "reflect the same average spending on CDs/MP3s/vinyl as other consumers," SoundExchange incorporates its response to ¶¶ 273-74 *infra*. To that, SoundExchange adds only that the portion of the transcript cited by the Services in this paragraph does not actually support their critique. *See* 8/6/20 Tr. 847:16-848:4 (Willig) (testifying that whether respondents "would likely spend more or less than the average purchaser of music if they turned to purchasing CDs, vinyls, or MP3 files" was "not a question that was viewed as leading to reliable results by the . . . survey designers.").

The remaining critique is that Professor Willig "never considered that respondents may obtain pirated copies of CDs and MP3s." JPFFCL ¶ 255. This is a meritless criticism that the Services have failed to support with any quantitative or empirical evidence. *See* SX PFFCL ¶ 783. [[redacted]]. 8/10/20 Tr. 1118:18-

1119:2 (Willig). For good reason. As Professor Hanssens testified, there is no reason to think respondents would provide "self-incriminating" answers acknowledging their intention to engage in unlawful activity. 8/26/20 Tr. 4143:6-4144:21 (Hanssens).

In any event, the phrasing of the questions in the various surveys mitigates the Services' concern. For instance, the Hanssens Survey asked respondents whether they would "Purchase new physical or digital recordings (downloads) of music." Ex. 4095 ¶ 48, Fig. 1 (Hanssens CWDT). Likewise, the Zauberman Survey asked respondents whether they would "Listen to CDs, vinyl records, or MP3 files that you currently own or would purchase." Ex. 5606 at 64 (Zauberman WDT). The Services have proffered no testimony defending the proposition that respondents would interpret the word "Purchase" to include "Steal," or the word "Own" to include "Stolen," and their own survey expert rejected such an idea. *See* 8/26/20 Tr. 4142:8-4143:5 (Hanssens). Moreover, Professor Hanssens' survey gave respondents the option to listen to "borrowed" copies or divert listening to "other" sources. Professor Hanssens explained that he would expect respondents planning to engage in piracy to have selected one of these options. 8/26/20 Tr. 4143:6-18 (Hanssens) ("Why didn't I use the word stealing? . . . Because I believe that we have an 'other' category in there. In other words, if somebody wants to express that they would steal music, they can do so under the 'other' category.").

Finally, the Services present no reason to think that piracy remains a significant enough phenomenon to make any measurable impact on Professor Willig's opportunity cost calculations. They cite to no data about the prevalence of piracy or theft and have placed no such data into the record. Notably, Professor Tucker testified that there has been a significant reduction in digital piracy over the past 15 years. 8/17/20 Tr. 2113:6-10 (Tucker). Professor Tucker explained how the rise of streaming services has played an important role in this development: "[W]ith the advent of these digital technologies, which allow so much better personalization and allow the creation of so much better product, we've actually seen customers being willing to pay for music . . . because of the superiority of these new services." 8/17/20 Tr. 2113:6-18 (Tucker).

Response to ¶ 256. Echoing their criticism regarding purchases of CDs, vinyl, and MP3s, *see supra* Resp. to ¶ 254, the Services argue that Professor Willig should have assumed that some respondents who reported *not* listening to a subscription interactive service within the last 30 days nonetheless *do* have an existing subscription to such a service. But the Services present no quantitative evidence indicating that their preferred assumption would have any material effect. The record evidence speaking to this issue indicates the low likelihood that there is a material number of individuals who subscribe to a paid streaming service, but do not listen to it at least once a month. *See* SX PFFCL ¶ 778; 8/27/20 Tr. 4184:23-4185:5 (Zauberman) (testifying that "every data [he'd] seen" indicates that "above 95 percent" of paid on-demand subscribers "would listen at least two or three times a month"). As Professor Zauberman testified, the "very, very low" number of subscribers who may fall into this category makes this critique "a non-issue." 8/27/20 Tr. 4184:8-4185:5 (Zauberman). Indeed, it is not even clear what percentage of on-demand subscribers who have not used their subscription in the last month are active listeners of noninteractive services, such that they would qualify for the Zauberman survey.

In addition to being empirically unsupported, the Services' preferred assumption is illogical. Consider the Services' hypothetical respondent, who subscribes to an on-demand service but hasn't listened to it in the past 30 days. When this respondent is asked what music-listening options she would pick "instead" of her noninteractive service, one would *not* expect her to select "subscribe to a paid on-demand streaming service"—given that she already *does* subscribe. Such a respondent is more likely to select "no" or "unsure" in response to the question. 8/27/20 Tr. 4185:6-17 (Zauberman). This further narrows the impact of the Services' alleged error.

Response to ¶ 257. Compounding their already erroneous interpretation of the Zauberman Survey, the Services fundamentally misunderstand the structure of Professor Zauberman's time allocation question in claiming that it generates "inconsistent results" that Professor Willig "overlooked." JPFFCL ¶ 257. Professor Zauberman's time allocation question asked respondents to consider their anticipated listening on a specific day in the future. SX PFFCL ¶¶ 784-87. There is no conflict between a respondent saying that she would replace her noninteractive service with CDs, and that she does not expect to listen to CDs on *one specific day* the following week. Ex. 5606 ¶¶ 60-64 & Apps. D & E (Zauberman WDT); 8/27/20 Tr. 4197:2-4198:5 (Zauberman); 8/6/20 Tr. 848:11-850:10 (Willig) ("I'm going to buy a new paid Spotify subscription, but I don't think I'm going to use it next Tuesday. It seems perfectly plausible, not paradoxical"). Indeed, Dr. Peterson was forced to concede that the phrasing of the time allocation question "relax[ed] the contradiction." 8/25/20 Tr. 3802:1-5 (Peterson); Ex. 1105 ¶ 137 n.135 (Peterson AWRT).

Response to ¶ 258. SoundExchange incorporates its response to ¶ 257 *supra*.

Response to ¶ 259. SoundExchange incorporates its response to ¶ 257 *supra*. The Services present no basis for the claim raised in this paragraph, other than an off-hand suggestion by Dr. Leonard, which itself was supported by zero empirical data or analysis. *See* 8/24/20 Tr. 3447:2-5 (Leonard) (positing that some respondents thought to themselves: "Hey, basically, on second thought here, I'm not going to use a subscription service that I identified in the first round."). Given the short duration of the survey, the idea that some respondents paused and "thought twice" in between the switching and allocation questions is not credible. Ex. 5606, App. D at 59 (Zauberman WDT) (estimating the survey "should take about 5 minutes to complete").

Response to ¶ 260. SoundExchange incorporates its response to ¶ 257 *supra*.

Response to ¶ 261. The Services claim that Professor Willig's "treatment of ambiguous results . . . significantly affect[s] his results." JPFFCL ¶ 261. But the remainder of this paragraph does nothing to support that claim. There is no dispute that the portion of opportunity cost attributable to spending on on-demand subscriptions and physical media is higher than the combined diversion ratios for these two sources. That is to be expected, given that these two outside distributors pay higher royalties than, say, Sirius XM satellite radio. *See* Ex. 5600 ¶ 47, Fig. 6 (Willig CWDT). But this fact has no bearing on whether the alleged errors by Professor Willig have an outsize impact.

The Hanssens Survey and Modified Hanssens Survey make clear that they do not. Those surveys are not subject to any of the "critiques" advanced by the Services here. *See* SXM PFFCL at iii ("Professor Hanssens' Surveys Were Scientifically Rigorous" and "Professor Simonson's Replication of Professor Hanssens' Survey Demonstrates Its Reliability"). Notably, those surveys find over *twice* the amount of diversion to new purchases of CDs, vinyl, and MP3s, and over *twice* the amount of diversion to new paid subscriptions to on-demand services, than the Zauberman Survey. *See* SX PFFCL ¶ 755, Fig. 19 (citing, *inter alia*, Ex. 4095 ¶¶ 49-50 (Hanssens CWDT) and Ex. 5608 ¶ 98 & App. F at Tables 4B, 5A (Simonson CWRT)); SX PFFCL ¶ 781, Fig. 21 (citing data from Ex. 5608, App. F at Table 4B (Simonson CWRT)). Accordingly, replacing the diversion ratios from the Zauberman Survey with the diversion ratios from either of these surveys would substantially *increase* the opportunity cost computed by Professor Willig, 8/5/20 Tr. 354:15-25, 495:10-14, 498:11-17 (Willig), and do so free of any of the "assumptions and treatment of ambiguous results" alleged by the Services in their proposed findings. JPFFCL ¶ 261.

Finally, the testimony by Dr. Peterson cited by the Services in this paragraph does not actually support the conclusion that Professor Willig's assumptions about the Zauberman Survey "significantly affect his results." [[redacted]]. 8/25/20 Tr. 3747:21-3748:15 (Peterson). The other surveys conducted in this case obviate the need for such additional sensitivity tests and show that Dr. Peterson's speculative concern has no foundation.

Response to ¶ 262. SoundExchange incorporates its response to ¶ 261 *supra*.

Response to ¶ 263. The Services criticize Professor Willig for his "assumption" that some respondents would switch from using a free statutory streaming service to purchasing both a paid streaming subscription and CDs, vinyl, or MP3s. JPFFCL ¶ 264. But this was not an "assumption"—it is what these respondents *said they would do*. As Professor Willig explained at trial (in the very testimony cited here by the Services), "[t]he attitude of the calculation of opportunity cost is to take seriously what it is that the respondents say they're going to do, as long as they are coherent in the view of the survey designer . . . . [T]he respondents' answers are taken at their word." 8/6/20 Tr. 835:13-836:23 (Willig). This attitude stands in sharp contrast to that of the Services, who fight the survey evidence and insist, without any empirical support, that the results are "unreasonable" and should be discarded.

In any event, the Services' critique is much ado about nothing. As Professor Willig made clear at trial, it was "exceptionally rare" for respondents to indicate that they would pick up three new forms of purchasing—"I think it's two respondents out of the thousand respondents overall." 8/6/20 Tr. 835:23-836:12 (Willig). The survey data likewise shows that only 9 out of 989 qualified respondents would respond to the degradation of an ad-supported service by purchasing both a new on-demand subscription and new CDs, vinyl, or digital downloads. *See* Ex. 1105 ¶ 136 n.130 (Peterson AWRT); *see also* Ex. 5606 ¶ 24 (Zauberman WDT) (989 respondents completed survey and were told that free streaming radio was no longer available); *id.* at ¶ 53 n.31.

Response to ¶ 264. SoundExchange incorporates its response to ¶ 263 *supra*.

Response to ¶ 265. The Services spend multiple paragraphs in their proposed findings criticizing Professor Willig's use of data from the "Share of Ear" study as a sensitivity check on the Zauberman Survey results. *See* Ex. 5600 ¶¶ 56-60 (Willig CWDT). Any such concerns have essentially been mooted. Professor Willig readily acknowledged at trial that, for purposes of computing diversion ratios and calculating opportunity cost, Share of Ear is "is not nearly as well founded . . . as making use of the Hanssens Survey or the modified Hanssens Survey or the Zauberman Survey. It was just another way to go at the time I did my WDT because I had no other data source available as a form of corroboration. But in many ways, it's really not comparably informative for the issues at hand, as those three surveys." 8/10/20 Tr. 1100:17-1101:1 (Willig). Importantly, since the time Professor Willig submitted his written direct testimony, other survey evidence *has* been entered into the record corroborating the Zauberman Survey. [[redacted]]. *See, e.g.*, 8/5/20 Tr. 354:15-355:4, 495:10-14, 498:11-17 (Willig).

Response to ¶¶ 266-69. SoundExchange incorporates its response to ¶ 265 *supra*.

5. The Services Have Failed to Identify Any Material Errors to Professor Willig's Opportunity Cost Analysis

Response to ¶ 270. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). The Services provide no evidentiary basis to support their proposed finding that Professor Willig made "basic mistakes" that affect the results of his opportunity cost analysis. JPFFCL ¶ 270. As explained below, there is no such basis. *See infra* Resp. to ¶¶ 271-75.

Response to ¶ 271. The Services argue that Professor Willig should have weighted royalties associated with CDs, vinyl, and digital downloads by number of units sold rather than by retail spend. At trial, Professor Willig did not shy away from conceding this very point. 8/5/20 Tr. 504:21-25 (Willig). SoundExchange does not dispute that making *only* this correction would reduce the weighted average monthly royalties per purchases associated with this category from [[redacted]] to [[redacted]]. However, as detailed in SoundExchange's initial findings, Professor Shapiro ignores a separate and more-than-offsetting error in his methodology. *See* SX PFFCL ¶¶ 633-37. Specifically, Professor Shapiro assumes that there is zero overlap between purchasers of CDs, purchasers of vinyl, and purchasers of digital downloads. Ex. 4107, App. D at Fig. D.1 (Shapiro WRT). Industry data in the record discredits this assumption. *See* Ex. 5039 at 16. Professor Willig testified that the net effect of correcting this and the previous error would be to *raise* the weighted average monthly royalties per purchaser from [[redacted]] to [[redacted]]. 8/5/20 Tr. 504:16-20, 505:5-6, 515:14-19 (Willig); SX PFFCL ¶¶ 635-36. Accordingly, Professor Willig's [[redacted]] number is conservative from the point of view of SoundExchange. 8/5/20 Tr. 503:24-504:1 (Willig).

Response to ¶ 272. SoundExchange incorporates its response to ¶ 271 *supra*.

Response to ¶ 273. Professor Shapiro claims that it was a "faulty assumption" for Professor Willig to expect a user of a noninteractive service to purchase CDs, vinyl, and digital downloads at the same rate as an average purchaser of those products. Ex. 4107, App. D at 83 (Shapiro WRT). Professor Shapiro claims that royalties generated by diversion to this category should instead be treated "like an advertising-supported service." *Id.*, App. D at 86. But his only basis for this claim is an unsupported ipse dixit about the psychology of consumer purchasing: "In reality . . . consumers choose how much or how little they listen to these media during a month, and make purchases accordingly." *Id.* Professor Shapiro did not then, and the Services do not now, offer any quantitative or qualitative support for this observation about the "reality" of consumer behavior. *Id.*; *see* 8/10/20 Tr. 1120:3-17 (Willig).

Stepping back, the proposition that consumers make a self-assessment about their predicted levels of listening and buy CDs based on that prediction doesn't remotely accord with common sense. There are numerous reasons consumers may buy CDs, vinyl, and digital downloads that have nothing to do with their predicted usage—such as a desire to support an artist, gift music to others, or acquire a physical souvenir at a concert. SX PFFCL ¶ 638. Needless to say, it was not a "basic logical mistake" for Professor Willig to decline to just take Professor Shapiro at his word. JPFFCL ¶ 273. Given the lack of empirical data on the question, it was reasonable for Professor Willig to conclude that the "average seemed like the best available estimate under the circumstances." 8/6/20 Tr. 847:16-848:4 (Willig); 8/10/20 1121:19-1122:8 (Willig).

Response to ¶ 274. Apparently recognizing their failure to build a record on this issue, the Services offer a non sequitur as purported support. They point out that, according to Professor Zauberman's survey, respondents would react to a degradation in their noninteractive service by allocating between 9% and 14% of their future listening time to CDs, vinyl, or digital downloads. Ex. 5600 ¶ 47, Fig. 6 (Willig CWDT); JPFFCL ¶ 274. This evidence does not address the relevant issue, let alone prove the Services' point. In particular, this survey data says nothing about whether these levels of incremental listening correlate to, let alone cause, levels of *purchasing* that are lower than for the average purchaser of CDs, vinyl, and MP3s. The Services claim that, when Professor Shapiro corrected for this "error," it resulted in an average spend of "$0.12 or $0.17 per month." JPFFCL ¶ 274. First, that is only true if the baseline average royalties are [[redacted]] per purchaser, *instead of* the corrected number of [[redacted]]. 8/5/20 Tr. 504:16-20, 505:5-6, 515:14-19 (Willig); SX PFFCL ¶¶ 635-36, 639. Second, *even if* the Services are right about this correction to opportunity cost, its bottom-line impact on calculated royalty rates is extremely small, entailing a reduction of [[redacted]] per play on ad-supported and [[redacted]] per play on subscription. Ex. 4107 at 64, Fig. 12 (Shapiro WRT); SX PFFCL ¶ 639.

Response to ¶ 275. Finally, the Services present no evidence to support their conclusory assertion that factoring "promotional effect" into Professor Willig's analysis would have reduced opportunity cost. JPFFL ¶ 275; *see* 8/10/20 Tr. 1128:5-1129:9 (Willig). Indeed, in the very testimony that the Services cite in this paragraph, Dr. Leonard conceded that he "did not explicitly quantify a promotional effect" because "quantifying it is very difficult." 8/24/20 Tr. 3408:1-6 (Leonard); *see also* 8/25/20 Tr. 3604:5-21 (Leonard). SoundExchange has explained in detail why the only quantitative evidence in the record indicates that the relative promotion of the noninteractive services may be a financial *negative* for record companies. *See* SX PFFCL ¶ 521. Spotify Free is extremely successful at converting users to its higher-paying subscription tier, whereas [[redacted]]. *Id.*; *see* Ex. 5609 ¶ 23 (Harrison WDT); Ex. 5186; 8/6/20 Tr. 631:8-632:19 (Willig); 8/10/20 Tr. 1060:11-1061:8 (Willig). As such, any diversion of users from Spotify Free to Pandora Free creates both an opportunity cost to record companies from the loss of royalties from Spotify Free *and* the cost of foregoing Spotify Free's stronger ability to promote users to services that generate higher royalties.

iv. Professor Willig Correctly Computed Webcasters' Willingness to Pay

Response to ¶ 276. Having failed to poke meaningful holes in Professor Willig's choice of model or his opportunity cost calculation, the Services lastly turn to Professor Willig's computation of willingness to pay. Their critiques fare no better in this arena. The Services begin by observing that, in assessing distributor willingness to pay, Professor Willig relies on Pandora financials and "does not rely on any other webcaster's financial data." JPFFCL ¶ 276. This is not actually a critique. Professor Shapiro also relied only on Pandora's financial data in constructing his models. *See* 8/5/20 Tr. 530:12-17 (Willig); 8/25/20 Tr. 3783:21-3784:1 (Peterson). And for good reason: Pandora accounts for more than [[redacted]] of the total plays in the noninteractive market. Ex. 5600 ¶ 49 & App. D, Ex. D.4 (Willig CWDT). Notably, not a single Service economist has proposed an alternative set of financial data to use in assessing willingness to pay—or explained how such alternative data would yield a profits-per-play figure that is materially different than that of Pandora. *See* 8/10/20 Tr. 1137:18-23 (Willig) (explaining that using a less profitable service as a proxy "wouldn't have any effect on what's important for the analysis," if the service's lower profits "went along with smaller audience [and] fewer plays."); SX PFFCL ¶¶ 652-56.

SoundExchange addresses the claim that Professor Willig "utilizes significantly overstated marginal profit rates for Pandora" below. *See infra* Resp. to ¶¶ 277, 279-84.

1. Professor Willig Correctly Allocates Costs Across Pandora's Tiers of Service and Other Business Lines

Response to ¶ 277. The Services fail to understand the allocation approach that Professor Willig actually utilized. Professor Willig did *not* allocate product development costs just to Pandora Free and Pandora Plus. Professor Willig explained his allocation methodology in detail:

[[redacted]]

8/6/20 Tr. 706:18-708:9 (Willig); *see also* Ex. 5601 at 138, rows [15] to [18] (allocating product development costs not only to Pandora Free and Plus, but also to Premium and other activities such as off-platform advertising); 8/6/20 Tr. 712:9-15 ([[redacted]]).

Response to ¶ 278. No response.

Response to ¶ 279. Pandora incurs a mix of fixed and variable product development costs, and Professor Willig took these classifications into account in his written rebuttal testimony. *See* Ex. 5601, App. L at L-4 nn.55-58 (Willig WRT); 8/5/20 Tr. 520:16-21 (Willig).

Response to ¶ 280. [[redacted]]. JPFFCL ¶ 280. But again, Professor Willig took into account the idea that there are both fixed and variable product development costs associated with the free tier. *See* Ex. 5601, App. L at L-4 nn.55-58 (Willig WRT).

Response to ¶ 281. The Services' claim that "variable cost savings from a reduction in usage on the free tier would be experienced on the free tier, rather than spread across multiple tiers" approaches a truism. JPFFCL ¶ 281. But it does not address the relevant question—is the free tier the *only* tier that incurs product development expenses? Professor Shapiro assumed so. 8/20/20 Tr. 3209:12-3210:5; Ex. 4094, App. F at Table A.2 & Table A.3 (Shapiro Second CWDT); *see* SX PFFCL ¶¶ 1006-18. [[redacted]]. *See* 8/31/20 Tr. 4724:4-7 (Ryan) ([[redacted]]); 8/31/20 Tr. 4677:16-20 (Ryan) ([[redacted]]); 8/31/20 Tr. 4680:1-8, 4681:12-15 (Ryan) ([[redacted]]).

Response to ¶ 282. SoundExchange agrees that it would have been inappropriate for Professor Willig to allocate potential variable cost reductions based on the reduced usage of the free tier to other aspects of Pandora's business. JPFFCL ¶ 282. That is not what Professor Willig did. [[redacted]]. 8/31/20 Tr. 4675:18-24, 4680:22-4681:18, 4724:4-11 (Ryan). [[redacted]]. 8/6/20 Tr. 706:18-708:9, 712:2-715:6 (Willig). [[redacted]]. 8/31/20 Tr. 4678:14-19, 4680:11-17, 4681:24-4682:5 (Ryan) ([[redacted]]).

2. The Services Fail to Establish That Deducting Non-Music Revenue Would Have Made Any Difference To Professor Willig's Calculation of Pandora's Per-Play Profit Rate

Response to ¶ 283. SoundExchange has discussed at length why Pandora's Scenario 2 projections are substantially more reliable than the Pandora "LRS" and incorporates those arguments here. *See* SX PFFCL ¶¶ 659-66. Suffice it to say that Pandora cannot disavow its Scenario 2 merger proxy projections without conceding that it materially misled its own stockholders. Under Delaware law, "[a] proxy statement should 'give the stockholders the *best estimate* of the company's future cash flows as of the time the board approved the [transaction]'"—not an inflated forecast. *David P. Simonetti Rollover IRA v. Margolis*, CIV.A.3694-VCN, 2008 WL 5048692, at *10 (Del. Ch. June 27, 2008) (emphasis added)). Indeed, the Court of Chancery of Delaware has enjoined mergers where proxy statements present materially misleading information about the projections underlying an investment bank's fairness opinion. *E.g.*, *Maric*

Cap. Master Fund, Ltd. v. Plato Learnings, Inc., 11 A.3d 1175, 1178 (Del. Ch. 2010). The truth is that Pandora did not mislead its investors—Scenario 2 reflected "the best currently available estimates and judgments of the management of Pandora" and was presented to Pandora's investment bankers as such. Ex. 5045 at 62; 8/31/20 Tr. 4700:14-4701:25 (Ryan).

Holding aside the debate between Scenario 2 and the LRS, the Services claim that Professor Willig did not use the Scenario 2 projections correctly, highlighting aspects of those projections concerning non-music revenue and non-music ad-supported listening. JPFFCL ¶¶ 284-85. SoundExchange does not dispute the two pieces of data presented, but *does* dispute the Services' failure to put them together—a problem discussed further below. *See infra* Resp. to ¶¶ 284-85.

Response to ¶ 284. The evidence indicates that non-music revenue and non-music listening travel together in roughly equal proportion. For example, [[redacted]], 8/31/20 Tr. 4732:5-21 (Ryan), [[redacted]]. *Compare id.* ([[redacted]]), *with* Ex. 5345 at 2 ("Full-year ad revenue at Pandora reached a record $1.2 billion").[47] Similarly, by 2025, roughly 12% of Pandora's ad-supported listening will be of non-music content. 8/31/20 Tr. 4671:25-4672:6 (Ryan). That year, roughly [[redacted]] of ad-supported revenue will be attributable to non-music content. *See* JPFFCL ¶ 286 n.41 ([[redacted]]). The fact that non-music revenue and non-music listening are projected to increase at roughly the same rate is critical, because Professor Willig computed distributor willingness to pay on the basis of projected profits *per-play*. 8/6/20 Tr. 699:15-25 (Willig); Ex. 5600 ¶ 30 (Willig CWDT). Given the nature of his calculations, any change to projected revenue that Professor Willig should have made to account for non-music content would have been offset by a roughly

[47] [[redacted]].

proportional change in plays, resulting in no meaningful change to the bottom line. *See* 8/10/20 Tr. 1134:12-1135:12 (Willig) ("[I]f the projection is, say, on the high side, with respect to the number of plays or the number of subscribers, and correspondingly on the high side with respect to revenues …. then when the revenues are put on a per-member or per-play basis, those inflation factors will literally divide out and it won't affect the bottom line answer.").

Indeed, Professor Willig evaluated the information about non-music content discussed in this paragraph and determined that [[redacted]] 8/5/20 Tr. 519:1-11 (Willig); *see also* SX PFFCL ¶¶ 677-78.

Response to ¶¶ 285-86. SoundExchange incorporates its response to ¶ 284 *supra*.

D. **The Services' Criticisms of Professor Zauberman's Survey Are Wrong**

Response to ¶ 287. None of the Services' arguments undermine the reliability of Professor Zauberman's survey. As discussed in SoundExchange's initial findings, the Services' critiques are misleading and their speculation about how asserted issues may have affected the Zauberman Survey are contrary to evidence. SX PFFCL ¶¶ 764-87. Notably, the only testimony the Services cite in this proposed finding comes from two witnesses: Professor Hauser (who designed a deeply flawed instrument that is out of line with other surveys in this proceeding) and Dr. Leonard (who is not an expert in survey design). *See* JPFFCL ¶ 287.

i. **There Is No Evidence That the Definitions of Free Streaming Radio in the Zauberman Survey Made Any Difference**

Response to ¶ 288. Although the Zauberman Survey contains a slight discrepancy in definitional language for Free Streaming Radio, the Services' selective quotation of the two definitions disguises just how slight that difference is. Both versions are copied in full below:

- *Primary Description*: "A **FREE streaming radio** service, such as personalized radio services like free Pandora and free iHeart Radio, and online streams of AM/FM radio stations, where you cannot choose a specific song, and must listen to advertisements." Ex. 5606, App. D (Zauberman WDT) (S7, Q1, Q2).

- *Alternate Description:* **"FREE streaming radio** services, such as personalized radio services like free Pandora and free iHeart Radio, and online streams of AM/FM radio stations, allow you to listen to customized radio stations with advertisements, but you cannot choose a specific song." *Id.* (introduction to Q2 and Q3A).

The Services try to make much of the fact that one definition describes free streaming radio as "personalized" while the second describes it as "personalized" and "customized." JPFFCL ¶ 288 (erroneously calling alternate description "incorrect," an "egregious flaw," and a "grav[e]" error). Incendiary language aside, the Services provide no basis to conclude that this slight difference had *any* effect on Professor Zauberman's data—or that respondents even noticed it.

In fact, there is every reason to believe the inclusion of alternate language had no effect at all. *First*, Professor Zauberman pretested the final version of the survey and found no confusion among respondents. 8/27/20 Tr. 4251:21-4252:21 (Zauberman) (J. Strickler: "[I]n the pretest, the definitions were exactly as we see them here?" Witness: "Correct, Judge."). *Second*, the Services' argument that the word "customized" signaled to respondents that AM/FM streaming was not a free streaming radio service is belied by the text itself. Every time the Zauberman Survey describes free streaming radio services, it explicitly provides examples of services that fall into this category. "[O]nline streams of AM/FM radio stations" was, in every definition, among the enumerated services. Ex. 5606, App. D (Zauberman WDT) (blue font in original). *Third,* had respondents noticed and been confused by the variation in language, the resulting data would have shown an uptick in "unsure" responses with respect to free streaming radio services, once alternate language was introduced. *See* 8/27/20 Tr. 4181:4-4185:17 (Zauberman). The Services do not and cannot provide any evidence that this occurred. *Finally*, it is worth noting that the alternate description (which includes the word "customized") appeared only in introductory language, and not in any survey response option.[48] *See generally* Ex. 5606, App. D (Zauberman WDT) (Q2).

Regarding the claim that simulcasts are not customizable, the Services misrepresent the testimony. Although Professor Zauberman acknowledged certain differences between types of free streaming radio services, he elsewhere explained that simulcast listeners do have some ability to customize their experiences. 8/27/20 Tr. 4271:1-13 (Zauberman) (testifying that station choice is one of several aspects of customization). This view comports with how other experts, including Professor Hanssens and Dr. Leonard, described the functionality available through simulcasts. *See* SX PFFCL ¶ 1133 (citing Leonard and Orszag testimony); 8/26/20 Tr. 4121:7-4125:8 (Hanssens) (simulcasts of AM/FM broadcasts and free streaming radio services like Pandora are "very comparable mediums" that "share key attributes" and compete with one another).

Response to ¶ 289. SoundExchange incorporates its response to ¶ 288, *supra*. Although Professor Zauberman testified that the (slight) definitional discrepancy was inadvertent, the Services decline to address testimony indicating that the final version of his survey was pretested, that pretests did not indicate respondent confusion, and that there is no evidence descriptions "locked in ambiguities." 8/27/20 Tr. 4248:21-4253:12 (Zauberman); *see also* Ex. 5606 ¶ 30 (Zauberman WDT). In other words, the Services provide no evidence that respondents were confused by the definitional language and they ignore the evidence to the contrary.

Response to ¶ 290. SoundExchange incorporates its response to ¶¶ 288-89 *supra*. Professor Zauberman's testimony that variations in language are not a best practice was not his "ultimat[e]" conclusion. *See, e.g.*, 8/27/20 Tr. 4217:5-21 (Zauberman) (concluding that

[48] Moreover, because not all respondents were asked every question, only a subset of them even encountered the slightly modified introductory language. Ex. 5606, App. D (Zauberman WDT) (programming instructions following Q1/Q2).

Zauberman Survey provides the most reliable data of any survey or experiment in the proceeding, and noting that its findings are highly consistent with the Hanssens and Simonson Surveys). Nor does it bear meaningfully on Professor Zauberman's data, given that pretesting did not surface any issues and other instruments corroborate the reliability of Professor Zauberman's results. Resp. to ¶¶ 288-89 *supra*; SX PFFCL ¶¶ 731-57.

ii. Professor Hauser's Belated Focus on "Cheap Talk" Is Misleading, Without Evidentiary Basis, and Beyond the Scope of His Testimony

Response to ¶ 291. As discussed in SoundExchange's initial findings, Professor Hauser's trial testimony regarding "cheap talk" is beyond the scope of his written testimony and unsupported by the academic literature he mischaracterized at trial. SX PFFCL ¶¶ 1259-61. The attempt to bootstrap Professor Hauser's meritless claims onto Dr. Leonard's testimony does not change anything. Dr. Leonard's theoretical claim that survey respondents do not "really consider how much things cost," is an unsupported broadside of survey methodology by an expert not qualified in the field. *See* 8/24/20 Tr. 3348:17-23 (Leonard). His testimony says nothing about Professor Hauser's assertion that this issue has a greater impact on surveys that allow respondents to select multiple options, nor does it suggest that other measures, such as providing pricing information within a survey, are insufficient to manage any "hypothetical bias." *See, e.g.*, Ex. 4095, App. 6 at pp. 98, 101 (Hanssens CWDT) (providing pricing information); Ex. 5606, App. D (Zauberman WDT) (same). Even if the asserted effect did exist (and there is no evidence it does), none of the Services have attempted to quantify it, including with respect to Professor Zauberman's survey, Professor Hauser's survey, or any other survey in this proceeding.

Response to ¶ 292. SoundExchange incorporates its response to ¶ 291 *supra*. As explained in SoundExchange's initial findings, where a respondent indicates he does not expect to listen to a replacement option on *one specific day* next week, it does not follow that the respondent would not use that option at all. SX PFFCL ¶¶ 784-87 (explaining that zero time allocation critique is meritless and depends on a total misunderstanding of Zauberman's Q3/3A). Even Professor Hauser, who agrees with Professor Zauberman and other survey experts on very little, testified that he did "not totally disagree with Dr. Zauberman" that it is reasonable for some respondents to allocate zero time to a chosen replacement option. 8/27/20 Tr. 4349:22-4350:4 (Hauser).

Response to ¶ 293. The Services' attempt to compare data from two drastically different generation processes does not provide any useful information about consumers' real-world behavior. 8/27/20 Tr. 4212:14-4213:2 (Zauberman). As Professor Zauberman testified at trial, a comparison between his survey and Professor Hauser's "is beyond apples to oranges. This is like fruit to something else." 8/27/20 Tr. 4212:14-4213:2 (Zauberman) (Hauser's ad hoc attempt to make such a comparison is like "taking two vectors, throwing them into a blender, and showing you can get similar shapes. . . . you just can't do that"); *see also* 8/6/20 Tr. 622:9-625:24 (Willig) (discussing non-comparability of Hauser and Zauberman surveys).

Response to ¶ 294. That some respondents to the Zauberman Survey indicated they would use more than one paid subscription service does not indicate a lack of reliability. *See* SX PFFCL ¶¶ 1248-49. It is entirely possible that people's willingness to pay changes as conditions surrounding their choices change. *See generally* Ex. 5606 ¶ 13, App. D (Zauberman WDT) (asking respondents to imagine hypothetical world in which *all* free streaming radio services were no longer available). Additionally, the Services own witness, Professor Hauser, testified that "[i]t is not uncommon for people to have multiple paid subscriptions, even within the same service type." Ex. 2151 ¶ 85 (Hauser WDT); *see also* Ex. 2040 at 57 (highlighting the reasons why people pay for subscription services); SX PFFCL ¶¶ 761, 1248-49 (noting Zauberman Survey's conservative approach to multiple subscriptions). In any event, the Services' critique is much ado about nothing, as the actual number of respondents who indicated they would use multiple paid subscriptions is very low. *See* Resp. to ¶ 263, *supra* (only 9 out of 989 qualified respondents to the Zauberman Survey said they would purchase both a new on-demand subscription and new CDs, vinyl, or digital downloads; two (2) respondents selected three new paid options).

iii. Professor Zauberman's Focus on Music Listening Was Appropriate

Response to ¶ 295. Professor Zauberman's focus on music listening was entirely appropriate in light of the focus and scope of this proceeding. To be clear, the Zauberman Survey asked respondents how they would replace their current *music* listening; it did not ask them how they would replace non-music-listening on free streaming radio or any other service. *See* Ex. 5606, App. D (Zauberman WDT); SX PFFCL ¶ 725. In fact, the survey screened out and terminated respondents who listen only to non-music on streaming services. To move on from the screening section to the main questionnaire, respondents had to indicate that they listen to "[m]usic streamed through an app or website (e.g., Spotify, Apple Music, Pandora, iHeart Radio, Sirius XM website, AM/FM station website, YouTube, etc.)." *See* Ex. 5606, App. D (Zauberman WDT) (screening question S6). In the lead-up to the first question in the main questionnaire, respondents were reminded half a dozen more times that they were only being asked about music listening; and, in the first main survey question, they were asked "which of the following music-listening options have you used to listen to music?" *Id.* (emphasis added to Q1). Again, respondents who only listen to non-music on the options listed did not move on to the switching question.

The structure of the Zauberman Survey allowed respondents to indicate if they would move some of their current music-listening time to non-music (by selecting "do something other than listen to music"), but they were not able to indicate the inverse (by responding about migration from non-music to music-listening). This is yet another way that the Zauberman Survey is conservative. *See* SX PFFCL ¶¶ 761-63 (enumerating other conservative design choices).

The Services' claim that Professor Zauberman's pretests may have missed this issue is based entirely on Professor Hauser's speculation. *See* Ex. 2161 ¶ 28 (Hauser WRT) (citing nothing in support of claim). This position is particularly silly in light of Professor Hauser's attempt to shore up his own flawed survey by overreliance on pretesting. *See* SX PFFCL ¶ 782 (critiquing Hauser's expansive reliance on pretesting).

Response to ¶ 296. Again, Professor Hauser's claim is entirely speculative. There is no evidence—derived from pretesting or otherwise—that survey respondents had difficulty remembering what non-music options are available to them in the world. It is not difficult to see why: Professor Hauser's examples of non-music alternatives include, *e.g.*, watching television or reading a newspaper. Ex. 2151, App. D (Hauser WDT). The suggestion that respondents would not be aware of those options without a specific prompt defies all reason.

Professor Zauberman's approach struck an appropriate balance between providing a comprehensive list of options and the risk of making his survey unwieldy and confusing. *See* Ex. 5606 ¶ 57 (Zauberman WDT) (included option to "do something other than listen to music" in order "to make sure that respondents would listen less to music" in the hypothetical scenario); Ex. 5607 ¶¶ 70-71 (Zauberman WRT) (discussing risk of choice complexity); 8/27/20 Tr. 4229:7-4230:16 (Zauberman). In fact, the Zauberman Survey is better on both sides of that balance: The Zauberman Survey provides a much more manageable list of options (7 versus Hauser's 22). *See* Ex. 2151, App. D (Hauser WDT); Ex. 5606, App. D (Zauberman WDT); SX PFFCL ¶¶ 1224-25, 1227. Despite its relative brevity, the Zauberman Survey also provides a more comprehensive list of response options by categorizing music-listening options and allowing respondents to select "do something other than music." Ex. 5606, App. D (Zauberman WDT). The Hauser Survey, by contrast, does not include a catchall for non-music listening options that are not specifically enumerated. Ex. 2151, App. D (Hauser WDT). This means that for respondents who would replace current listening time with activities like exercise or spending time with friends and family, the Hauser Survey provides no applicable answer choice, whereas the Zauberman Survey does. *See* 8/27/20 Tr. 4229:7-4230:16 (Zauberman) (explaining he rejected Hauser's granular approach because it would be impossible to "map the entire universe" of available non-music options).

iv. The Zauberman Survey Correctly Measures New Paid Subscriptions

Response to ¶ 297. There is no sound basis for the Services' argument that the Zauberman Survey overstates new purchases of subscription streaming services. *See* SX PFFCL ¶¶ 777-79. In suggesting that Professor Zauberman should have asked respondents what they subscribe to rather than what they have listened to in the past 30 days, the Services omit crucial parts of Professor Zauberman's testimony, which indicate why he specifically rejected this possibility. *See* 8/27/20 Tr. 4181:5-4182:19, 4184:8-4185:5, 4239:2-13 (Zauberman). Among other things, this approach would have created a tension with how non-subscription options were presented: Asking respondents about their current listening with respect to subscription *and non-subscription* options would have introduced ambiguity about the relevant time period;[49] on the other hand, retaining the 30-day time-frame for non-subscription options only would have complicated the survey and created non-uniformity that risked privileging some options over others. *Id.*

Although SoundExchange agrees that Q2 options were customized based on Q1 responses, to say respondents who had not listened to their paid on-demand subscriptions in the past 30 days were "only" given the option to subscribe to a new paid on-demand service ignores the other options presented to respondents. Allowing respondents to select "yes," "no," or "unsure" for each

[49] Imagine, for instance, that a respondent has not listened to CDs in over 6 months. If asked "do you listen to CDs," with no specified timeframe, it is not clear whether that respondent should chose "yes" or "no." Providing a timeframe for CDs and all other non-subscription options in Q1 is necessary to avoid this ambiguity.

option is a particularly important design choice. *See* SX PFFCL ¶¶ 724, 769; Ex. 5606, App. D (Zauberman WDT). As Professor Zauberman testified, "no" or "unsure" would have been the most applicable response options for respondents who would begin listening to paid on-demand services to which they already subscribed. SX PFFCL ¶ 779; 8/27/20 Tr. 4184:8-4185:17 (Zauberman).

Response to ¶ 298. SoundExchange incorporates it responses to ¶ 297, *supra*. Dr. Leonard's basis for his testimony that inactive subscriptions are "not uncommon" is a mash-up of a news article and Spotify's SEC filing (from a single cherry-picked quarter), neither of which are in evidence. Even if these sources supported Dr. Leonard's testimony, there is no indication that Dr. Leonard's data is representative of other paid on-demand services or representative of Spotify across time. *Cf.* 8/27/20 Tr. 4184:24-4185:5 (Zauberman).

Response to ¶ 299. NAB simultaneously argues that thirty days is too long for respondents to remember their own listening behavior accurately, *and* that thirty days is not long enough because a respondent may not have used his or her subscription service in the past 30 days. SX PFFCL ¶ 782; Ex. 2060 ¶ 18 (Leonard CWRT). NAB cannot have it both ways. SoundExchange respectfully refers that Judges to it response to ¶ 297, *supra*.

v. There Is No Sound Basis for the Services' Concern Regarding Respondents' Use of New vs. Existing CD Collections

Response to ¶ 300. SoundExchange incorporates SX PFFCL ¶¶ 777, 780-81. Additionally, the Services misrepresent Professor Willig's testimony; his statement about a hypothetical inaccuracy in the Zauberman data was made in the context of explaining of why reliance of this data *was* appropriate. 8/6/20 Tr. 843:20-847:12 (Willig).

vi. The Services' Attention Check Critique Is Meritless

Response to ¶ 301. As Professor Zauberman testified, there is "absolutely no reason to believe" an attention check would affect the results of a survey that—like the Zauberman Survey—

was conducted by a highly reputable firm whose panelists are monitored and repeatedly verified. *See* SX PFFCL ¶¶ 716-17 (enumerating steps taken to ensure attentiveness and reliability), 765-76 (rebutting attention check critique). Each of the other survey experts acknowledged that tools other than attention checks can be used to ensure that respondents are engaged in a survey. 8/26/20 Tr. 4114:6-4116:11 (Hanssens) (implementing principle of parsimony is one way to reduce the risk of inattentiveness); 8/27/20 Tr. 4283:5-13, 4295:12 (Simonson) (testifying that he does not normally use attention check questions); *see also* 8/27/20 Tr. 4201:4-4208:1 (Zauberman). Tellingly, even Professor Hauser did not state this criticism as a general rule. 8/27/20 Tr. 4334:23-4335:1 (Hauser) (testifying merely that attention checks are now "becoming widely used").

The failure rate of 38% in response to Professor Hauser's "Lenovo" question (QS6) is far from typical or acceptable. *Cf.* SX PFFCL ¶¶ 773-75 (failure rates for standard attention check questions in Hanssens and Simonson surveys ranged from 0.0% to 1.5%). Professor Hauser's flawed QS6 results in an enormous failure rate because it tests respondents reading comprehension, not their attentiveness. As Professor Zauberman testified, using this type question as an attention check has an obvious downside:

> Q . . . Is there a downside in your opinion of eliminating too many respondents with a—with an attention check question?
>
> A. Of course. When your attention check turns into a comprehension check, in which you're starting to sift people through the degree of [education] and thoughtfulness, now you're truncating your population. As it turns out, there's a distribution of attention and thoughtfulness that goes into people's everyday decisions.
>
> And when I have a sample, I want to make sure that I include all those people, even if they will not get into Yale Law School.

8/27/20 Tr. 4208:22-4209:9 (Zauberman). Professor Hauser's testimony that he sampled and reweighted his population in order to avoid or correct any demographic skew, is not at all responsive. *See* 8/27/20 Tr. 4335:17-4336:19 (Hauser). The only demographic information the Hauser Survey collected was respondents' age, gender and geographic region. Ex. 2151, App. D at 2151.111 (Hauser WDT) ("Click balanced on age, gender, and region to the U.S. Census Bureau 2019 postcensal population estimates"). None of these demographic categories speak to respondents' differing levels of reading comprehension or levels of education. Professor Zauberman avoided this problem of over-exclusion and ensured that his sample reflected the entire population—not just a subset of law students or others with exceptional reading comprehension skills. SX PFFCL ¶ 776 (replicating Professor Hauser's flawed approach would have made the Zauberman Survey less, not more, reliable).

Response to ¶ 302. The Services' critiques fail and, for the reasons discussed above and in SoundExchange's initial findings, the Zauberman Survey provides the most reliable data of any survey or experiment in this proceeding. *See supra* Resp. to ¶¶ 297-301; SX PFFCL ¶¶ 761-63.

E. The Services' Ability-To-Pay Arguments Are Irrelevant to the Willing Buyer/Willing Seller Rate Standard

Response to ¶ 303. Professor Tucker's analysis included an examination of the actual financials and financial projections of both Pandora and iHeart. *See* Ex. 5604, Apps. 4-15 (Tucker WDT); Ex. 5605, Apps. 5-8 (Tucker CWRT); *see also* SX PFFCL ¶¶ 1329-34, 1336-37, 1339.

Response to ¶ 304. Given the Services' concession that ability to pay is not the relevant standard, the Judges should disregard the Services' voluminous evidence addressed to that issue. *See* SX PFFCL ¶ 1294 (citing Services' evidence and testimony).

i. The Services' Ability to Pay Arguments Are Irrelevant to the Statutory Standard

Response to ¶ 305. SoundExchange incorporates its response to ¶ 304 *supra*.

Response to ¶ 306. The Services erroneously suggest that the major record companies comprise "the other party to the willing-buyer, willing-seller hypothetical negotiation," when in reality (a) over 110,000 rights holders, including both record companies (most of them small and independent) and artists who own the copyrights in their own recordings, receive statutory royalties distributed by SoundExchange, and (b) 50% of statutory royalties are paid directly to artists, for whom these royalties constitute an increasingly important part of their livelihoods. 17 U.S.C. § 114(g)(2); SX PFFCL ¶¶ 1305-09; Ex. 5625, App. A ¶ 6 (Bender WDT).

Response to ¶ 307. SoundExchange agrees that the Judges' rate determination should not be based on or constrained by any service's ability to pay. SX PFFCL ¶¶ 1292-94.

Response to ¶ 308. The Services have suggested that Pandora faces a "stark[] picture" financially. JPFFCL ¶ 319; *e.g.*, Ex. 4090 ¶¶ 43-47 (Phillips WDT). This testimony is irrelevant, JPFFCL ¶ 304, and Professor Tucker has explained why it is also wrong. SX PFFCL ¶ 1327.

Response to ¶ 309. Examining the economics of Pandora and iHeart was appropriate because for commercial noninteractive webcasters they together [[redacted]]. *Id.*

ii. The Services Ignore the Empirical Support for this Analysis

Response to ¶ 310. Professor Tucker explained how the trends she discussed undermine the Services' dire predictions about Pandora's anticipated growth. *See id.* ¶¶ 1327-39.

Response to ¶ 311. Pandora's adoption of cloud computing dramatically decreased, by a factor of 30, the time Pandora takes to analyze ad performance metrics. *Id.* ¶ 1317; Ex. 5604 ¶ 26 (Tucker WDT); *see also* 8/17/20 Tr. 2357:10-2358:16 (Tucker) (observing that Pandora's public statements link this trend to increased advertising revenue).

Response to ¶ 312. Because of increased efficiencies from its investment in cloud computing, Pandora receives substantial additional value from each additional dollar it spends on data processing. SX PFFCL ¶ 1317; 8/31/20 Tr. 4722:12-25 (Ryan) ([[redacted]]).

Response to ¶ 313. [[redacted]] 8/31/20 Tr. 4723:13-4724:3 (Ryan). This corroborates Professor Tucker's observation that Pandora's investments in advertising efficiency have allowed for a dramatic growth in Pandora's ability to capture advertising spend, and that it still has room for improvement and significant growth. 8/17/20 Tr. 2172:4-2173:9 (Tucker); Ex. 5604 ¶¶ 123-24 (Tucker WDT).

Response to ¶ 314. SoundExchange incorporates its Response to ¶ 313 *supra*.

Response to ¶ 315. Testimony in this proceeding demonstrates that simulcasters do utilize and benefit from the rise of predictive technologies like machine learning. SX PFFCL ¶ 1140. Mr. Pittman testified about iHeart's recent emphasis on the use of artificial intelligence—which makes the sequencing and programming of sound recordings on simulcast look increasingly like that on a pure-play streaming service. *See* 9/9/20 Tr. 6020:12-24 (Pittman) ("[W]e've got so many inputs that it's hard for a human being to digest them to decide should we play this song or this song, which song should we play next to which song, how often should they be sequenced . . . . [O]ur programming folks have been working with our—our IT people for a while to build an artificial intelligence that can take over a lot of that work and can also eventually schedule the music."); *see also* Ex. 5522 at 1 ([[redacted]]); *id.* at 3 ([[redacted]]).

Response to ¶ 316. The proliferation of smart speakers has accelerated the public's use of streaming services like Pandora and has facilitated competition between simulcast and non-simulcast noninteractive services. *See* Ex. 5139 at 62 ([[redacted]]

[redacted]]); 8/31/20 Tr. 4636:19-4637:7 (Phillips); SX PFFCL ¶ 1076-79.

Response to ¶ 317. Professor Tucker's testimony explains the trends behind the numbers in Pandora's and iHeart's financial statements and projections. *See* SX PFFCL ¶¶ 1329-34, 1336-37, 1339. It is offered as a qualitative explanation rather than a quantitative supplement.

iii. Pandora Understates Its Own Financial Success

Response to ¶ 318. The Services downplay Pandora's actual projected financial performance and growth. The cited portions of Mr. Ryan's testimony rely on [[redacted]] than the merger proxy statement Scenario 2 projections relied on by SoundExchange's witnesses. *See* SX PFFCL ¶¶ 659-66. Those Scenario 2 projections, filed with the SEC, show [[redacted]]. *See* Ex. 5600 at 100, line [47] (Willig CWDT) (showing [[redacted]] in 2025). In any event, the Services ignore the metric that actually matters—the extent to which Pandora expects to drive increasing levels of profits from each user. *Cf.* SX PFFCL ¶¶ 678, 1315 (citing, *inter alia*, 8/6/20 Tr. 699:15-19 (Willig)) (projected profits *per-play* are what matters in analyzing distributor willingness to pay). Unit economics allows firms to identify customers whose acquisition costs are favorable relative to their future profitability streams and optimize the types of customers they target. Ex. 5604 ¶ 30 (Tucker WDT). Professor Tucker's conclusions about the Services' financial positions are based on unit economics, which she believes is the best measure of a service's performance. 8/17/20 Tr. 2135:11-22 (Tucker).

Response to ¶ 319. The Judges should disregard the Services' attempt to use current pandemic conditions as a proxy for Pandora's anticipated financial health over the next five years. SoundExchange agrees with Judge Strickler that there is "nothing in the record that gives [the Judges] any ability to show how, if at all, . . . [their] analysis should be changed based on the economic effects arising from the pandemic." 8/4/20 Tr. 232:9-233:4 (Judge Strickler). SoundExchange otherwise incorporates its response to ¶ 318 *supra*.

Response to ¶ 320. Pandora's anticipated increase in EBITDA over the coming five year rate period is not tied to anticipated synergies with Sirius XM. Ms. Witz testified that the two companies "are still in the early stages" of even "identifying and capturing the synergies" from the merger, suggesting that these are not be baked into Pandora's projections. 8/31/20 Tr. 4511:11-13 (Witz). And indeed, the Scenario 2 merger proxy projections on which Professor Willig appropriately relied do *not* base Pandora's increasing profitability on synergies. Ex. 4011 at 2.

Response to ¶ 321. SoundExchange incorporates its response to ¶ 318 *supra*.

Response to ¶ 322. Again, Mr. Ryan's testimony relies on [[redacted]]. *See* Resp. to ¶ 318, *supra*. Moreover, [[redacted]]. SX PFFCL ¶¶ 1303-04 (citing 8/31/20 Tr. 4725:15-1726:8 (Ryan)). Finally, Pandora's arguments about its profitability are entirely irrelevant, as the Services themselves concede. *Id.* ¶ 304. In *Web IV*, the Judges rejected the Services' argument that "the rates set in this proceeding must be sufficiently low to permit their business models to be profitable." 81 Fed. Reg. at 26329. The Judges recognized that "neither the D.C. Circuit, nor the Judges (or any of their predecessors) have so held" that the statutory standard permits the Judges to consider "ROI and business model issues." *Id.*; SX PFFCL ¶¶ 1340-42.

Response to ¶ 323. The Services' implication that Pandora excels at converting ad-supported users to its subscription services flies in the face of reality. Pandora admits, and other evidence confirms, that "the conversion rate to one of our subscription products … is low." Ex. 4090 ¶ 28 (Phillips WDT); SX PFFCL ¶¶ 190, 521. Undisputed evidence demonstrates that statutory services do not have the same economic [[redacted]] incentives to upsell their users as on-demand services, nor are they nearly as effective in doing so. SX PFFCL ¶¶ 192-97, 521 (citing, *inter alia*, 8/6/20 Tr. 631:8-632:19 (Willig); 8/10/20 Tr. 1060:11-1061:8 (Willig)).

The Services' argument that a lower rate for simulcasters would benefit copyright holders by encouraging simulcasters to convert more broadcast listeners to simulcast is likewise untethered from reality. First, the Services have presented no credible evidence that statutory royalties are a barrier to broadcasters' use of simulcasting. Mr. Wheeler has claimed he is hesitant to embrace simulcasting only due to "the exorbitant SoundExchange royalties that we must pay to simulcast," Ex. 2157 at ¶ 24 (Wheeler CWDT), and testified that [[redacted]]. 9/1/20 Tr. 5050:25-5051:14 (Wheeler). But this claim fell apart at trial. Mr. Wheeler admitted that his [[redacted]] that had [[redacted]]. 9/1/20 Tr. 5050:25-5051:14, 5054:16-20, 5055:19-5056:4 (Wheeler); *see also* Ex. 5312.[50]

Second, because broadcasters pay zero sound recording royalties for terrestrial broadcasts, they *always* pay more in sound recording royalties for simulcast listeners than they do for broadcast

[50] The spreadsheet [[redacted]]. Ex. 5312. However, [[redacted]]. Ex. 5312. For example, [[redacted]]. Ex. 5312. The spreadsheet also [[redacted]]. Ex. 5312. Dr. Leonard's analysis shows that Wheeler stations average much less than [[redacted]]. *See* Ex. 2150, at App. C14, C15, C16 (Leonard CWDT).

listeners. JPFFCL ¶ 323. The statutory rate never provides broadcasters with an incentive to funnel their listeners to simulcast (until it hits zero, of course). [[redacted]]. 9/1/20 Tr. 5033:19-5034:1, 5038:6-10 (Wheeler); SX PFFCL ¶ 1301. He admitted that [[redacted]]. 9/1/20 Tr. 5036:19-5038:5 (Wheeler).

Third, the Services' assertion that a lower rate would encourage broadcasters to convert listeners to simulcast ignores the reality that many broadcasters already are willing to simulcast at the current rates and feel it is necessary to do so to protect their core business, AM/FM radio, from competition by digital streaming services. SX PFFCL ¶¶ 697, 1077-80. The truth is that a rate decrease would provide no meaningful incentive for broadcasters to convert their listeners to simulcast, nor would a rate increase provide any meaningful disincentive. SX PFFCL ¶¶ 1295-99; 9/1/20 Tr. 5028:10-25, 5031:21-24 (Wheeler) (acknowledging that [[redacted]]).

iv. The Critiques of Professor Tucker's iHeart Analysis Fall Flat

Response to ¶ 324. Professor Tucker relies on iHeart's own internal projections to support her conclusions in the cited paragraphs of her testimony. The Services have produced no evidence that the company's own projections of what it expects to happen are "optimistic." As Professor Tucker explained, these services are "going to use the best information they can to try and make sure that those projections are robust." 8/17/20 Tr. 2137:6-14 (Tucker).

Response to ¶ 325. The Services misrepresent Professor Tucker's colloquy with Judge Strickler. Professor Tucker explained that the steadiness of the underlying trends and the general setting in which someone makes projections are the indicia of reliability she looks to when evaluating projections. 8/17/20 Tr. 2138:10-22 (Tucker). She explained that she gives less weight to the past performance of those people responsible for the projections, because "if someone hits their predictions, you don't know how reliable that is going to be." 8/17/20 Tr. 2138:10-22 (Tucker). Moreover, Professor Tucker relied on industry analysts from well-known Wall Street firms such as JP Morgan and Morgan Stanley; the Services present no reason to discredit the work produced by these reputable firms. Additionally, the citation to 8/18/20 Tr. 2435:2-6 does not support the Services' proposition. In the cited testimony, Professor Tucker merely confirmed that some of her testimony was about projections of iHeart's future growth. 8/18/20 Tr. 2435:2-6 (Tucker). Professor Tucker also testified about actual, historical "figures such as the data which documented the increase in simulcasting." 8/18/20 Tr. 2435:2-6 (Tucker). Professor Tucker relied on the best data available to her to assess iHeart's financial performance, given that iHeart produced only limited financial data and does not make public many of the same financial metrics that Pandora does. 8/17/20 Tr. 2180:15-19 (Tucker); 8/18/20 Tr. 2455:14-2456:21 (Tucker).

Response to ¶ 326. Professor Tucker relied on the financial information produced by iHeart in this matter. The Services cannot now criticize Professor Tucker for relying on 2017 financials and future projections, when that was the information about iHeart provided to SoundExchange by NAB. Moreover, Professor Tucker recognized that iHeart's projected digital revenue growth includes digital revenues for non-webcasting businesses, and she analyzed this data separately. *See* Ex. 5604 App. 15 (Tucker WDT) ([[redacted]]). [[redacted]]. *Id.*

Response to ¶ 327. The financial documents and projections available to Professor Tucker [[redacted]]. Resp. to ¶ 326, *supra*; Ex. 5604, App. 15 (Tucker WDT). Professor Tucker does not [[redacted]]. *See* Ex. 5480. In any event, [[redacted]]. *See* Ex. 2178 at 6 ([[redacted]].

In an aside, the Services claim that iHeart's bankruptcy plan contradicts Professor Tucker's testimony, without providing a citation to the plan itself or any details about what is contained therein. If the Judges consider the Services' arguments about iHeart's bankruptcy plan, they should also take into account that, in 2018, [[redacted]] SX PFFCL ¶¶ 1338-39.

III. SOUNDEXCHANGE'S PROPOSED TERMS AND MINIMUM FEE SHOULD BE ADOPTED, AND THE SERVICES' SHOULD BE REJECTED

A. Audit Terms

i. Interest Rate for Late Payments Discovered in Audits

Response to ¶ 328. In *Web IV*, the Judges specifically held that late payments discovered during the course of audits are to be paid with interest at the rate applicable to other late payments (1.5% per month). 37 C.F.R. §§ 380.2(d), 380.6(g). They did so because "[t]he 1.5% rate is an accepted rate in the market," *Web IV*, 81 Fed. Reg. at 26399, and in an audit context "[a]s with any untimely payment, a Licensee that is obligated to remedy an underpayment is liable to pay reasonable interest thereon," *id.* at 26402. SoundExchange proposes that the Judges stick with the approach they adopted in *Web IV*. SoundExchange Proposed Rates and Terms at 19.

Because the Services propose a significant change from the current webcasting regulations, the Services bear the burden of coming forward with sufficient evidence that their change is consistent with applicable standards for the adoption of terms. *Web IV*, 81 Fed. Reg. at 26320; *see* SX PFFCL ¶ 1578. However, the Services offer only the self-serving testimony of their own company witnesses who—not surprisingly—think it would be more "appropriate" to have a lower late fee for their late payments. *E.g.*, Ex. 2145 ¶ 43 (Williams CWDT). While music licenses routinely include late fee terms, SX PFFCL ¶¶ 1610-13, the Services do not show that the federal statutory post judgment rate has ever been adopted by anyone as the late fee term in a marketplace transaction. The Services have failed to demonstrate that their proposed change is warranted.

Response to ¶ 329. Treating late payments that are discovered in audits just like other late payments is the most consistent with the statutory license and its logical underpinnings. The statutory license compels artists and copyright owners to let their works be used without the usual opportunity to choose with whom they would like to do business. 17 U.S.C. § 114(f)(3)(B) (statutory license available to "[a]ny person"). Thus, for example, copyright owners do not have the opportunity [[redacted]]. 9/3/20 Tr. 5566:20-5568:3 (Adadevoh). However, Congress did not intend to leave artists and copyright owners at the mercy of the strangers using their recordings. Instead, it expressly set out "to ensure that recording artists and record companies will be protected as new technologies affect the ways in which their creative works are used." H.R. Conf. Rep. No. 105-796 at 79 (1998). It is inconsistent with that intention to engineer a system where licensees have an incentive to conceal underpayments of statutory royalties, rather than identifying and correcting them promptly. Ex. 5625 ¶ 59 (Ploeger WRT).

The Services' late fee proposal should be assessed in tandem with the other, interrelated aspects of the audit process at issue in this proceeding. The Services advocate a system where the possibility of having to pay what is owed with an extremely low amount of interest is simply the last link in a chain that also involves audits that drag on for years, with licensees able to shield their activities from scrutiny because they get to decide what data to provide to or withhold from the auditor, and with the auditor unable to hear SoundExchange's perspective on the issues. *See* JPFFCL ¶¶ 341, 346-47, 349; SX PFFCL ¶¶ 1619-55. Such a system does not provide the level of transparency and protection for artists and copyright owners that Congress intended. *See* SX PFFCL ¶¶ 1588-90.

As the Judges found when they previously rejected a proposal similar to the Services', "[t]he 1.5% rate is an accepted rate in the market." *Web IV*, 81 Fed. Reg. at 26399. The record in this proceeding likewise makes clear that agreements in the marketplace [[redacted]]. *See* SX PFFCL ¶¶ 1610-13.

The Services assert a likelihood that underpayments discovered in audits will be the result of inadvertent good-faith errors. However, the Judges have recognized that "[t]he burden of accurate reporting and payment is on the Licensee." *Web IV*, 81 Fed. Reg. at 26402; *see also id.* at 26399. Further, apart from the Services' say-so, there is no evidence that good-faith errors are more likely than systematic underpayments or that inadvertent errors are likely to be material. Mr.

Ritz of iHeart testified about how hard it works to ensure that its payments are accurate. Ex. 2162 ¶ 7 (Ritz WRT). Mr. Ploeger likewise testified that licensees should and do catch inadvertent errors through their own quality assurance processes. Ex. 5625 ¶ 59 (Ploeger WRT).

Even taking the Services' witnesses at their word, there are over 3,500 webcasters relying on the statutory license other than the large public companies participating in this proceeding. Ex. 5625, App. A ¶ 32 (Bender WDT). And evidence shows that there is a good chance that many of them may be systematically underpaying statutory royalties. SX PFFCL ¶¶ 1605-09. Sirius XM's Mr. Barry—a principal proponent of the Services' audit terms—acknowledged that he has no familiarity with the accuracy of their royalty payments. 8/31/20 Tr. 4525:25-4526:13 (Barry). When those other webcasters underpay and get caught, they should not be rewarded by having the only consequence be payment of a near-zero late fee. SX PFFCL ¶¶ 1617-18.

Response to ¶ 330. The Services mischaracterize the history of the 1.5% late fee. The Judges adopted that late fee based on evidence of agreements in the marketplace, the majority of which provided for a 1.5% per month late fee. *Web II*, 72 Fed. Reg. at 24107. The Judges found such agreements to be "the best evidence as to the appropriate late fee." *Id*. The late fee for late payments was not an issue in *Web III*, where both the litigated rates and settlements with NAB and college broadcasters carried forward the 1.5% late fee. *Web III Remand*, 79 Fed. Reg. at 23129, 23132, 23136. In *Web IV*, the Judges reaffirmed the late fee again, holding that a 1.5% late fee is "an accepted rate in the market." *Web IV*, 81 Fed. Reg. at 26399. It was not until *Web IV* that anyone ever suggested that licensees should get a special discount on the late fee if their late payments go undiscovered until an audit. *Web IV*, 81 Fed. Reg. at 26399. The Judges rejected that idea out of hand, holding that such late payments should be addressed "[a]s with any untimely payment." *Web IV*, 81 Fed. Reg. at 26402.

It was only in *SDARS III* that the Judges decided to substitute a policy judgment about late fees for marketplace evidence of late fees, deciding that a low late fee for late payments discovered in audits would be "appropriate in such a circumstance." *SDARS III*, 83 Fed. Reg. at 65262. However, that proceeding was governed by the policy-based standard formerly set forth in Section 801(b)(1) of the Copyright Act, not by the willing buyer/willing seller applicable to this proceeding. Here, the Judges should continue to rely on the marketplace evidence they have historically used when setting late fees. That evidence looks a lot like it has in past proceedings. *See* SX PFFCL ¶¶ 1610-13. Indeed, in an effort to come up with anything approaching contrary evidence, the Services resort to mischaracterizing the testimony of their own witness. Mr. Barry testified that Sirius XM and Pandora "run through about 3500 signings of contracts a year." 8/31/20 Tr. 4530:1-7 (Barry). But he said nothing about how many of those contracts *include an audit provision*. It may very well be that the "less than ten" Sirius XM contracts specifying a 1.5% monthly late fee constitute a majority, or even the entirety, of Sirius XM contracts allowing for a counterparty audit. 8/31/20 Tr. 4525:12-16 (Barry).

Response to ¶ 331. While the 1.5% late fee provides an important incentive to comply with statutory license requirements, SX PFFCL ¶¶ 1617-18, evidence shows that it is not punitive for the Services complaining about it most loudly. In the case cited by Mr. Pifer, Google paid [[redacted]] in late fees, Ex. 1104 ¶ 10 (Pifer WRT), [[redacted]]. Ex. 5625, App. A ¶ 35 (Bender WDT). For its part, Sirius XM [[redacted]]. SX PFFCL ¶ 1615. [[redacted]]. Ex. 5244 at 6-7; *Determination of Rates and*

Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, 82 Fed. Reg. 56725, 56735 (Nov. 30, 2017) (hereinafter "*Underpayment Decision*").

Response to ¶ 332. There is no basis for attributing to the 3,500 webcasters not participating in this proceeding the attitudes expressed by witnesses from the handful of large public companies that are participating in this proceeding, when (1) there is evidence of systematic underpayments by such other webcasters, (2) Triton markets its reporting services to such other webcasters as excluding payable performances, and (3) [[redacted]]. SX PFFCL ¶¶ 1608-09, 1635-41; *see also* 8/31/20 Tr. 4525:25-4526:13 (Barry) (principal proponent of the Services' audit terms has no familiarity with the accuracy of other services' royalty payments).

Further, while the Services accuse SoundExchange of having a motivation to delay audits, SoundExchange is not the one making day-to-day decisions about the audit process—such details are worked out between the independent auditor and the party under audit. *E.g.*, 8/31/20 Tr. 4522:18-4523:3 (Barry). Consistent with that, Sirius XM's Mr. Barry testified at trial that delays are due to the circumstances of the auditor or the party under audit. 8/31/20 Tr. 4523:8-18 (Barry). For its part, SoundExchange tries to move audits along, to the limited extent it can, so it can get artists and copyright owners paid sooner rather than later. Ex. 5625, App. A ¶¶ 89, 94 (Bender WDT); 9/9/20 Tr. 5816:1-20 (Ploeger). Indeed, it is SoundExchange that is proposing terms in this proceeding to try to *accelerate* the pace of audits and confirm its ability to discuss the status of audits with the auditor, which allows SoundExchange to encourage auditors to move the process along and potentially call off an audit that does not seem worth continuing. SX PFFCL ¶¶ 1623-30, 1643-55; 9/9/20 Tr. 5817:12-18 (Ploeger). The Services oppose these proposals.

ii. Credit for Overpayment

Response to ¶ 333. The Services' proposal to credit an overpayment found in an audit against the licensee's next payment is similar to a proposal the Judges rejected in *Web IV*, where they found that SoundExchange is not in the same position as a commercial company with respect to reconciliation of payments over time, and "[t]he burden of accurate reporting and payment is on the Licensee." *Web IV*, 81 Fed. Reg. at 26402. The Services have failed to come forward with sufficient evidence justifying a change from the Judges' prior decisions. *See Web IV*, 81 Fed. Reg. at 26320; SX PFFCL ¶¶ 1656-60; *see also* 37 C.F.R. § 382.7(g) (incorporating express rejection of this proposal into PSS/SDARS regulations).

Response to ¶ 334. SoundExchange incorporates its response to ¶ 333 *supra*.

Response to ¶ 335. The Judges crafted the current language of Section 380.6(g) based on the recognition that the royalties SoundExchange receives are earmarked for distribution to particular artists and copyright owners for particular uses of their works, and the vast majority of royalty payments are distributed quickly. SX PFFCL ¶¶ 1658-59. If an audit were to reveal a net overpayment (which has never happened), it would be manifestly unfair to credit the service by reducing royalties earned by *different* artists and copyright owners in a *different* period, who would effectively become underpaid as a result. And it would be burdensome and potentially impossible for SoundExchange to claw back the royalties that were actually overpaid to artists and copyright owners in the past. SX PFFCL ¶ 1660. The cable compulsory license audit regulation at 37 C.F.R. § 201.16(j)(2) is not relevant given the very different flow of royalties under Section 111. There, royalties are paid into the Copyright Office, which is able to make a refund from the pool of royalties it is holding because distributions are made by the Judges on a percentage basis, typically over a period of years, rather than being earmarked to specific uses of specific works. *See Distribution of 2018 Cable Royalty Funds*, 85 Fed. Reg. 29753 (May 18, 2020).

Response to ¶ 336. While discovery of even an isolated overpayment in an audit is "rare," *no* audit by SoundExchange has *ever* found a *net* overpayment. Ex. 5625 ¶ 68 (Ploeger WRT). Thus, this proposal is "a solution looking for a problem." 9/9/20 Tr. 5817:21-22 (Ploeger).

Response to ¶ 337. Since no audit has ever found a net overpayment, it would make no sense for SoundExchange to hold royalties in anticipation of a need to refund overpayments. Ex. 5625 ¶ 68 (Ploeger WRT). Indeed, doing so would arguably contravene the requirement that SoundExchange "promptly distribute royalties" to those who have earned them. 37 C.F.R. § 380.4(a)(1). Nor could SoundExchange refund overpayments out of unclaimed royalties. The Judges' regulations do not authorize that. 37 C.F.R. § 380.4(b). And while Sirius XM and Pandora have proposed a change to the unclaimed funds provision, that proposal requires distribution of unclaimed funds to artists and copyright owners. *See* Sirius XM and Pandora Second Amended Proposed Rates and Terms at 2. Thus, their proposed change is actually *incompatible* with their suggestion that SoundExchange refund overpayments out of unclaimed royalties.

Response to ¶ 338. The Services have made no showing that the new Mechanical Licensing Collective and SoundExchange have a similar ability to process refunds or credits.

iii. Net Underpayment for Cost Shifting

Response to ¶ 339. No response.

iv. Response Deadlines

Response to ¶ 340. No response.

Response to ¶ 341. The Services' proposed deadline for audit completion is similar to a proposal rejected by the Judges in *Web IV*, which would have required that audits be completed in six months. *Web IV*, 81 Fed. Reg. at 26402. The Services have failed to come forward with sufficient evidence explaining why their slightly longer timeframe justifies a different result. *See Web IV*, 81 Fed. Reg. at 26320; SX PFFCL ¶¶ 1661-63.

The timeline the Services propose remains extremely aggressive, and there is no evidence of any audit ever having been completed this fast. *See* SX PFFCL ¶¶ 1625-26. Indeed, completing an audit by the proposed deadline would require much faster pacing than the Services seem to think is possible. *Compare* Services' JPFFCL ¶¶ 343-44, *with* Ex. 5242 at 5-6; Ex. 5243 at 6-7. Notably, the Services never say what should happen if an auditor were unable to meet this impossible deadline. Presumably the position they would take in an actual audit is that the audit must terminate—even if the auditor has not yet had material visibility into the Payor's usage. The Judges should decline to impose an arbitrary and impossible-to-meet deadline, which would accomplish nothing other than promote an inequitable result.

Mr. Barry makes an unsupported assertion that a deadline for audit completion would motivate licensees to greater alacrity. *See* Ex. 4110 ¶ 16 (Barry WRT). However, it is not obvious—and Mr. Barry does not say—why that might be the case. Licensees do not welcome audits. *See* SX PFFCL ¶ 1653. There is very little incentive for a licensee to cooperate in an audit (and that problem would be compounded if the Judges were to adopt the Services' rock-bottom late fee proposal). Ex. 5625, App. A ¶ 112 (Bender WDT); *supra* Resp. to ¶¶ 328-29. In the absence of a mechanism to compel responsiveness by licensees, it seems more reasonable to expect that licensees under audit would run out the clock by slow-rolling every step of the audit process. *See* SX PFFCL ¶¶ 1661-63; 8/31/20 Tr. 4524:13-25 (Barry) (agreeing that this is a possibility).

Response to ¶ 342. The proposed hard deadline for the completion of every audit also ignores the practical reality that every audit is unique and there are myriad reasons why audits may drag on for much longer than the period proposed by the Services. *E.g.*, SX PFFCL ¶¶ 1590, 1621, 1624, 1627-29, 1633-40, 1644-45. Despite the Services' assurances that they value efficiency in the audit process, that simply has not been SoundExchange's experience across audits of the participants and many other webcasters. *Id*. Short-term intermediate deadlines are the only practicable approach to keeping audits moving along. SX PFFCL ¶¶ 1623-30.

Response to ¶ 343. While the Services try to deflect onto auditors the responsibility for delays between Thanksgiving and April 15, it is clear from Mr. Barry's actual testimony that it is Sirius XM that would prefer not to be bothered with an audit over the holidays or when its personnel are completing year-end financial procedures and making SEC filings. *See* Ex. 4110 ¶¶ 9-10 (Barry WRT). Auditors have made progress auditing other licensees during that part of the year. SX PFFCL ¶¶ 1625-26.

Response to ¶ 344. While the Services seek to artificially cap the length of an audit, they reject even the generous intermediate deadlines proposed by SoundExchange, indicating that their professed desire for speed and efficiency is, at best, inconsistently observed. SoundExchange proposes deadlines for responding to auditor information requests that are comparable to the timelines permitted for the substantially more complicated and multifaceted discovery that takes place in rate-setting proceedings like this one. 17 U.S.C. § 803(b)(6)(C)(iv). Indeed, the record reflects audits that were completed in a manner consistent with SoundExchange's proposed deadlines. SX PFFCL ¶¶ 1625-26.

The Services complain that auditor requests can be unclear or burdensome, but SoundExchange's proposal includes a process for addressing such issues. SoundExchange Proposed Rates and Terms at 18. This process is similar to the "meet and confer" obligation under the Judges' rules, 37 C.F.R. § 351.5(b)(1), which serves "to clarify ambiguities in discovery requests and to narrow issues in dispute so as to avoid unnecessary motions." *Order Granting in Part and Denying in Part SoundExchange's Motion to Compel Discovery from NAB* at 5 (Jan. 7, 2020). That process has successfully addressed the large majority of discovery issues in this proceeding, and the Services have provided no reason to think it would be insufficient to address similar issues in an audit context.

Response to ¶ 345. The Judges should disregard the Services' baseless conspiracy theory that SoundExchange is the mastermind of auditors' information requests. While stirring up innuendo to that effect, Mr. Barry admitted at trial that he is not a party to communications between SoundExchange and its auditors and has visibility into the formulation of auditors' requests only through participation in kick-off meetings with the auditors. 8/31/20 Tr. 4522:4-4523:3 (Barry). While Mr. Barry might have disagreed with some of the information requests Sirius XM has received, the perspective of the auditor auditing Sirius XM was that [[redacted]]. Ex. 5244 at 5. In any event, SoundExchange's proposed disputes process is set up precisely to address situations like this. *See* Resp. to ¶ 344.

Response to ¶ 346. Whether or not the Services participating in this proceeding believe that they have attempted to timely respond to auditor requests, [[redacted]]. *See* SX PFFCL ¶¶ 1621 ([[redacted]]), 1644 ([[redacted]]). Moreover, there are over 3,500 *other* webcasters relying on the statutory license, Ex. 5625, App. A ¶ 32 (Bender WDT), and the record reflects long delays without good explanation in audits of some of them as well. *See* SX PFFCL ¶¶ 1627, 1638.

SoundExchange is not necessarily opposed to the concept of reasonable deadlines that apply to auditors as well as Payors. After all, "the clock is on and we're . . . paying for the audit." 9/9/20 Tr. 5816:15-16 (Ploeger). However, apart from Mr. Barry's general allegations that auditors and licensees sometimes *share* responsibility for delays over the holidays, Ex. 4110 ¶¶ 9-10 (Barry

WRT), there is no evidence that dilatory auditors are a significant source of delay in the audit process. *See* SX PFFCL ¶¶ 1621, 1627, 1638, 1644. To the contrary, the record reflects audits that have been moved along promptly by the auditors at the times of year when Mr. Barry says auditor schedules may contribute to delay. *Id.* at ¶¶ 1625-26.

The Services introduce new proposals in this and the following paragraph that are not addressed in any of their Proposed Rates and Terms. JPFFCL ¶¶ 346-347. Even assuming they are procedurally proper, SoundExchange has some concerns about these new ideas. *First*, it should not be necessary for each step of the audit process to take 90 days. *See supra* Resp. to ¶ 344. If it did, it is easy to see how multiple rounds of data requests could cause audits to become backed up, making it more important that the Judges adopt SoundExchange's proposal to recognize that audits for different periods can run concurrently. *See* SX PFFCL ¶¶ 1619-22. However, SoundExchange is not opposed to giving the auditor discretion to agree to a schedule for particular deliverables based on the complexity of the effort involved. *Second*, licensees should not have the unilateral right to decide that they will not comply with an auditor's request. The Judges have chosen to put an independent auditor in the driver's seat for statutory royalty audits, a decision the Services trumpet when it suits them. JPFFCL ¶ 354. It would be inconsistent with that decision to allow a webcaster to withhold agreement to the auditor's requests and thereby avoid the response deadlines. *Finally*, to avoid any miscommunication and ensure that the documentary record the Services propose is accurate, a Payor objecting to a request should be required to state the basis for its objections in writing.

Response to ¶ 347. With changes to address the points above, the Services' revision of SoundExchange's proposal would read as follows:

> If the auditor sends the Payor a written request to conduct field work for the audit, <u>the auditor and</u> the Payor must endeavor to schedule

> such field work for a date or dates within 30 days after the date of the request, and in any event must schedule such field work for a date or dates within 60 days after the date of the request. If the auditor sends the Payor a specific written request for information ~~reasonably~~ related to the audit, the Payor must promptly respond to the auditor if the Payor does not believe that the ~~request is reasonable~~ requested information reasonably is necessary to verify the Payor's payments or is available without unreasonable burden, setting forth the basis for that belief in writing, in which case the Payor and auditor must promptly endeavor to agree ~~concerning the provision of reasonable information responsive to the auditor's reasonable purpose for seeking the information~~ what information the Payor can and should reasonably provide and a schedule for the provision of such information. The Payor must provide the auditor ~~reasonable information responsive to the auditor's reasonable purpose for seeking additional information~~ the agreed-upon information in accordance with the agreed-upon schedule, and if the Payor and auditor are unable to reach complete agreement concerning information reasonably necessary to verify the Payor's payments and available without unreasonable burden, the additional information required by the auditor within 60 days after the date of the request. The Auditor shall maintain a schedule detailing the specific information requests that have been made, the Payor's agreement (or other written response) to the request, the specific date of the Payor's response, and any period of delinquency.

SoundExchange is not opposed to the Judges adopting the foregoing as a replacement for the corresponding block of new language in Section 380.7(d) of its Proposed Rates and Terms.

Response to ¶ 348. SoundExchange incorporates its responses to ¶¶ 341-47 *supra*.

v. Fee Shifting for Failure to Provide Information

Response to ¶ 349. The statutory license audit system has ground to a halt because many licensees under audit resist the process at every turn. SX PFFCL ¶ 1590. In this regard, it is telling that the Services themselves acknowledge that licensees under audit might ignore deadlines adopted by the Judges. JPFFCL ¶ 348. Of course the self-interested testimony of the Services' witnesses is that they would prefer to have no consequences for ignoring the deadlines. But if licensees are going to be dissuaded from continuing their past foot-dragging, there needs to be stronger incentives than exist under the current regulations. SX PFFCL ¶ 1642. A more robust fee-shifting provision is necessary.

Response to ¶ 350. The Services are correct to observe that delays in audits do cause interest to accrue under the current regulations. But that interest would create no incentive to prompt action by the licensee if it were to fall to near-zero as proposed by the Services, and indeed such a reduction may provide an affirmative *dis*incentive to cooperate. *See supra* Resp. to ¶¶ 328-32; SX PFFCL ¶ 1602-04. More to the point, such interest can only be computed if the auditor is ultimately able to obtain information sufficient to determine the extent of the licensee's underpayment. Licensees that resist the most will never have interest assessed against them—particularly if they are able to run out the clock pursuant to the Services' proposed all-in audit deadline. *See, e.g.*, SX PFFCL ¶ 1634-40; *supra* Resp. to ¶¶ 341-42; Ex. 5244 at 5. Response deadlines are sure to be ignored as the Services suggest, JPFFCL ¶ 348, if the only possible downside of doing so is a licensee having to pay what it owes—assuming that can eventually be figured out—plus a truly nominal amount of interest. SX PFFCL ¶¶ 1595, 1602-04.

Response to ¶ 351. An audit is not complete until a final report issues. 37 C.F.R. § 380.6(f). Before then, there are numerous points in the iterative audit process for a Payor's lack of cooperation to delay or derail the process or cause a [[redacted]] Ex. 5244 at 5; *see also* SX PFFCL ¶¶ 1624-28. If a Payor thwarts the auditor's inquiry into significant parts of its relevant activity, it is cold comfort that it did so only a single time, while perhaps permitting inquiry into other, less problematic aspects of its activity. It is fundamentally unfair for artists and copyright owners to be left bearing the costs of audits that do not provide an appropriate level of transparency due to a licensee's lack of cooperation. *See* SX PFFCL ¶¶ 1588-90, 1642.

Response to ¶ 352. As noted, SoundExchange's response deadline provision contains a disputes process to addresses situations where there are disagreements about the reasonableness of data requests. *See supra* Resp. to ¶ 344. Moreover, SoundExchange has agreed to modify its proposal based on the Services' suggestions. *See supra* Resp. to ¶ 347. SoundExchange notes in addition that the Services' biased perspective towards the audit process is revealed by their choice of language in this paragraph. The Services suggest that it is the "party requesting an audit" that makes data requests. JPFFCL ¶ 352. That is false. Data requests come from an independent auditor who exercises professional judgment about what information is needed to verify the accuracy of a licensee's payments. *See* 37 C.F.R. § 380.7 (definition of Qualified Auditor); 8/31/20 Tr. 4522:4-4523:3 (Barry) (describing discussions of data requests between Sirius XM and auditor); Ex. 5244 at 5 ([[redacted]] The Services' apparent belief that SoundExchange is the puppet master pulling the auditor's strings influences a number of their recommendations, *see infra* Resp. to ¶ 353; this is a baseless perspective that the Judges should reject.

vi. Clarification of Auditor's Right to Consult

Response to ¶ 353. There is no dispute that the auditors conducting statutory royalty audits must and should be independent. Ex. 5625, App. A ¶ 104 (Bender WDT). However, the Services misconstrue the concept of auditor independence. The Judges have recognized that independence is a term of art in the American Institute of Certified Public Accountants ("AICPA") Code of Professional Conduct. *SDARS III*, 83 Fed. Reg. at 65261; 37 C.F.R. § 382.1 (definition of Qualified Auditor). Yet despite Mr. Barry's citation to a relevant provision of that Code, Ex. 4110 ¶ 22 (Barry WRT), the Services ignore the meaning of independence as set forth in the Code.

When the AICPA Code of Professional Conduct speaks of independence, it prescribes certain principles that apply, Ex. 5001 at 10, as well as a framework of safeguards for managing threats to independence, *id.* at 41-45, and treatments of specific independence issues, *id*. at 45-120. Nowhere in the Code does it say that auditors cannot talk to their clients, as the Services seem to advocate here and have argued in circumstances that have brought a halt to the progress of audits. SX PFFCL ¶ 1644-45. Rather, as described in the Code, independence means that auditors should be objective and impartial, exercising their own professional judgment rather than subordinating their professional judgment to the will of others. *See* Ex. 5001 at 10. So understood, an independent auditor should be interested in consulting with its client to be able to discharge its duties to its client. *See* Ex. 5001 at 11. And it should also be interested in consulting with a licensee under audit to be able to discharge its duties to the public. *Id*.

Under the Services' interpretation of the Judges' regulations, an auditor can be subject to the influence of the party under audit, but have no opportunity to obtain a more neutral and objective perspective by consulting with SoundExchange as well. *See* SX PFFCL ¶¶ 1653-55. But independence requires the auditor to apply its own professional judgement to what it hears from *both* sides. SoundExchange's proposal is fully consistent with that principle. The Services' interpretation of the regulations is not.

Response to ¶ 354. SoundExchange incorporates its response to ¶ 353 *supra*.

Response to ¶ 355. Remarkably, the Services accuse all the auditors SoundExchange has ever engaged of serious violations of their professional obligations, based on nothing more than Mr. Barry's opinion that one auditor sought information that he viewed as unreasonable. Notably, that auditor had a very different perspective. *See supra* Resp. to ¶ 345. Further, Mr. Barry admitted at trial that he is not a party to communications between SoundExchange and its auditors and has visibility into the formulation of auditors' requests only through participation in kick-off meetings with the auditors. 8/31/20 Tr. 4522:4-4523:3 (Barry). There simply is no basis for a grand accusation that the auditors who have conducted statutory royalty audits have done anything other than discharge their professional obligations, including their obligation of independence, in a difficult and often adversarial environment. *See* SX PFFCL ¶ 1653.

The Services' complaints about interpretations of regulations seem to [[redacted]]. *See* Ex. 5625 ¶ 62 (Ploeger WRT); Ex. 5625, App. A ¶ 7 n.2 (Bender WDT). [[redacted]]. 82 Fed. Reg. at 56731-35. [[redacted]]. *See* Ex. 5244 at 6-7, 11-12. Sirius XM obviously would prefer an *ex parte* proceeding where its lawyer could make legal arguments to the auditor without the auditor hearing any contrary perspective, but that is not how the American legal tradition works, nor is it in any way required by the AICPA Code of Professional Conduct. *See* SX PFFCL ¶¶ 1653-55; *supra* Resp. to ¶ 353.

The suggestion that auditors only look for underpayments is likewise baseless. [[redacted]]. *See* Ex. 5244 at 3-4. That matching shows what it shows. Auditors "often find underpayments," 9/9/20 Tr. 5808:10-12 (Ploeger), and have never found a net overpayment, for the simple reason that licensees are careful not to pay more than they owe. Ex. 5625 ¶ 68 (Ploeger WRT).

Response to ¶ 356. SoundExchange incorporates its responses to ¶¶ 353-55 *supra*; *see also* SX PFFCL ¶ 1643-55.

B. **Minimum Fee**[51]

Response to ¶ 357. SoundExchange proposes to increase the minimum fee to $1,000 per channel or station. SoundExchange Proposed Rates and Terms at 2-3, 21; Ex. 5625 ¶ 9 (Ploeger WRT); Ex. 5625, App. A ¶¶ 37-38 (Bender WDT). SoundExchange has come forward with sufficient evidence to support this increase. *See* SX PFFCL ¶¶ 1543-66.

i. The Minimum Fee Is to Be Set with Reference to SoundExchange's Average Administrative Costs, and to Ensure that Each Licensee Makes a Reasonable Contribution to Those Costs as Well as Paying for its Usage

Response to ¶ 358. This proposed finding should be stricken because it does not cite to the hearing record. *See Order* at 1; 37 C.F.R. § 351.14(c). Moreover, it is based on a mischaracterization of the *Web I CARP Report* and is at odds with the Judges' previous decisions. *See* SX PFFCL ¶¶ 1532-42. Webcasters have long *argued* that the minimum fee should be set at a level that merely covers SoundExchange's incremental administrative costs, *Web I CARP Report* at 32 (describing webcasters' argument), but the minimum fee has never been set based on evidence of such costs. The Judges have never even used the word "incremental" with reference to the minimum fee.

Instead, the Judges consistently have set the minimum fee with reference to SoundExchange's *average* per channel or station administrative cost. *E.g.*, *Web IV*, 81 Fed. Reg. at 26396-97 ("SoundExchange's average administrative cost per licensee is substantially higher than the minimum fee it proposes"); *Web III Remand*, 79 Fed. Reg. at 23124 ("With the average administrative cost exceeding $800, the Judges find a $500 minimum fee to be eminently

[51] While the Services address the minimum fee in a section concerning their "Proposed Terms," JPFFCL ¶ 328, the minimum fee is properly viewed as part of the royalty rate structure, since it is money to be paid and distributed. *See* 17 U.S.C. § 114(g)(2), (3) (referring to "receipts from the licensing of transmissions"); 37 C.F.R. § 380.10 (addressing minimum fee in section captioned "Royalty fees"); H.R. Conf. Rep. No. 105-796 at 85 (1998) (purpose of minimum fee is to "ensure that copyright owners are fairly compensated"). By contrast, terms are matters such as "how payments are to be made, when, and other accounting matters." S. Rep. No. 104-128, at 30 (1995).

reasonable"); *In re Digital Performance Right in Sound Recordings and Ephemeral Recordings*, 79 Fed. Reg. 64669, 64672 (Oct. 31, 2014) (hereinafter "*Web II Second Remand*") ("[T]he cost to administer the statutory license . . . is $803 per year on average. It is reasonable and appropriate for the minimum fee at least to cover SoundExchange's administrative cost."). The Judges' historical approach to the minimum fee is economically appropriate, "because if everyone got marginal cost pricing, then it could be the situation where everyone is getting a low price but they're not actually covering the cost to administer the service." 8/12/20 Tr. 1760:18-21 (Orszag).

Moreover, it is not clear that a $500 minimum fee has *ever* been sufficient to cover SoundExchange's per channel or station administrative costs—whether measured on an average or incremental basis—let alone provide market compensation to recording artists and copyright owners for the use of their recordings by services paying only the minimum fee. Ex. 5625 ¶ 12 (Ploeger WRT); *id.*, App. A. at ¶ 46 (Bender WDT).

Response to ¶ 359. It is irrelevant that SoundExchange's administrative costs are paid out of royalties, because the minimum fee is itself a royalty. 17 U.S.C. §§ 112(e)(4), 114(f)(1)(B) (requiring minimum fee be part of statutory rate structure); 17 U.S.C. § 114(g)(2), (3) (referring to "receipts from the licensing of transmissions"). To set the minimum fee, the Judges have consistently looked to SoundExchange's average administrative costs. *Supra* Resp. to ¶ 358. The Judges have also recognized that the minimum fee should also reflect "payment for usage." *Web II*, 72 Fed. Reg. at 24099.

Response to ¶ 360. The Copyright Act requires that a minimum fee be part of the statutory rate structure. 17 U.S.C. §§ 112(e)(4), 114(f)(1)(B). The purpose of the minimum fee is to "ensure that copyright owners are fairly compensated in the event that other methodologies for setting rates might deny copyright owners an adequate royalty." H.R. Conf. Rep. No. 105-796, at 85 (1998).

Thousands of low-usage webcasters may together create more administrative costs than they generate in royalties, and those administrative costs are borne by artists and copyright owners. Thus, where the primary royalty metric is a per-performance royalty, it is entirely appropriate for the minimum fee to be set at a level that recovers a significant part of average administrative costs. 9/9/20 Tr. 5796:1-6 (Ploeger) ("If you add the minimum fees together of what those minimum fee stations are giving us, it's a little more than a million bucks, and the process that I've described . . . costs considerably more than that."); see also 8/12/20 Tr. 1760:18-21 (Orszag).

Response to ¶ 361. Twenty years ago in *Web I*, webcasters made an argument that the minimum fee should be set with reference to *incremental* administrative costs. However, the CARP did not actually do that. Instead, it recognized that *one* consideration in setting the minimum fee should be to "protect against a situation in which the licensee's performances are such that it costs the license administrator more to administer the license than it would receive in royalties." *Web I CARP Report* at 95. It then made "one fundamental assumption" that $500 was sufficient to do so. *Id*; *see also* SX PFFCL ¶ 1533. The Librarian accepted the Panel's decision concerning the minimum fee (while rejecting that decision in most other respects), because "none of the parties argue that the $500 fee falls outside the 'zone of reasonableness' for such rates." *Web I*, 67 Fed. Reg. at 45262. The Librarian added that "[i]f anything, the fee may be viewed as too low," given that the musical work performance rights organizations cited by the Panel actually charged a total minimum fee of $673. *Id.* at 45262-63. The Librarian referred to "incremental cost" only in describing such musical work royalties.

Response to ¶ 362. The Judges' discretion in setting the minimum fee is not limited by the *Web I* CARP's perception of the facts before it twenty years ago. In contrast to the assumption made by the CARP, the Judges have had actual evidence of SoundExchange's average administrative costs per channel or station in every webcasting proceeding. Those average costs were calculated in the same way as in this proceeding and consistently have been relied on by the Judges. *Compare* Ex. 5625, App. A ¶¶ 47-50 (Bender WDT), *with Web IV*, 81 Fed. Reg. at 26396-97; *Web III Remand*, 79 Fed. Reg. at 23124; *Web III*, 76 Fed. Reg. at 13040; *Web II Second Remand*, 79 Fed. Reg. at 64671-72; *see supra* Resp. to ¶ 359.

ii. The Record Supports Increasing the Minimum Fee

Response to ¶ 363. After litigating three appeals to the D.C. Circuit concerning minimum fee issues in *Web II* and *Web III*, SoundExchange made a litigation strategy decision to propose continuation of the $500 minimum fee in *Web IV*. SX PFFCL ¶¶ 1537-42. That litigation position is not evidence of a willing buyer/willing seller rate either then or now. Litigation positions are not benchmarks, because they are not rates freely negotiated in unregulated markets. Ex. 5603 ¶ 167 (Orszag WRT); Ex. 5602 ¶¶ 43-44 (Orszag WDT). Moreover, in language that the Services edited out of their quotation from the *Web IV* decision, the Judges observed that "SoundExchange's administrative costs (which the minimum fee is intended to defray, in part) exceed the proposed minimum fee by a wide margin." *Web IV*, 81 Fed. Reg. at 26397. SoundExchange's willingness in litigation five years ago to accept a minimum fee that was, at that time, about a quarter of its average per-channel or station administrative cost is not evidence of a willing buyer/willing seller rate. That is especially so given that its average per-channel or station administration cost has more than doubled since *Web IV*, due to the influx of a thousand webcasters that overwhelmingly have few channels or stations and low usage. SX PFFCL ¶¶ 1543-53.

Response to ¶ 364. As described above, the Services' focus on incremental costs is misplaced. *See supr*a Resp. to ¶¶ 358, 361-62. Nobody has ever calculated an incremental cost for administration of the statutory license. That would be impossible to do because costs vary widely by licensee based on factors such as the quality of data reported by the licensee and cannot feasibly be tracked on a licensee-by-licensee or channel-by-channel basis. Ex. 5625, App. A ¶ 47 (Bender WDT); *Web II Second Remand*, 79 Fed. Reg. at 64671-72. As a result, SoundExchange provided evidence of its average per-channel or station administrative cost, as it has in previous proceedings before the Judges. *See supra* Resp. to ¶ 362. The Judges have consistently relied on that evidence in setting the minimum fee. *See supra* Resp. to ¶ 359.

Response to ¶ 365. While SoundExchange has made significant IT investments to improve the efficiency of its operations, those improvements are not free of cost. Ex. 3023 at 39 ([[redacted]]); 9/9/20 Tr. 5871:9-11, 5872:4-6 (Ploeger). Further, SoundExchange still must devote a substantial amount of human labor to each licensee and channel or station. 9/9/20 Tr. 5791:2-5792:8, 5873:24-5874:1 (Ploeger); Ex. 5625 ¶ 11 (Ploeger WRT); *see also Web II*, 72 Fed. Reg. at 24096 & n.37 (finding the $500 minimum fee "low," given "that the royalty collection and distribution operations performed by SoundExchange consist of substantial work."). Despite its technology initiatives, SoundExchange's per-channel or station administrative cost has more than doubled since *Web IV*. SX PFFCL ¶¶ 1544-51.

Response to ¶ 366. SoundExchange's handling of a trivial amount of money paid by commercial webcasters with usage insufficient to recoup the minimum fee does not militate against an increase in the minimum fee.[52] As the Services trumpet, artists and copyright owners pay SoundExchange's administrative costs through a small deduction from royalty distributions.

[52] SoundExchange has not identified evidence in the record that would permit a precise calculation of the amount. However, in 2018, there were about 2,100 commercial webcasters. Ex. 5625, App. A ¶ 33 (Bender WDT). About 50% of them (roughly 1,050) paid only the minimum fee. *Id*. ¶ 34. While some of them might have had multiple channels, the vast majority did not. *See id*. at ¶¶ 33, 49 (Bender WDT) (in 2018, about 3,174 out of 3,589 webcasters operated only one station or channel). Thus, even if *none* of these minimum fee licensees recouped *any* of their minimum fee payments through usage (which is totally unrealistic), the amount in question would not be much more than half a million dollars (1,050 × $500 = $525,000).

JPFFCL ¶ 359; *see* 17 U.S.C. § 114(g)(3). As a result, the difference between using unrecouped minimum fees to rebate administrative costs paid by artists and copyright owners and distributing unrecouped minimum fees to the artists and copyright owners whose works were used is at most a question of how the money is allocated among artists and copyright owners. *See* SX PFFCL ¶ 1692. For the trivial amount of money in question, any difference in allocation is unlikely to be noticeable.

Response to ¶ 367. SoundExchange incorporates its response to ¶ 360 *supra*.

iii. Doubling of SoundExchange's Per-Channel or Station Administrative Costs Since *Web IV* Justifies an Increase in The Minimum Fee

Response to ¶ 368. SoundExchange has provided evidence of its per-channel or station administrative costs just like that relied on by the Judges in past proceedings. *See supra* Resp. to ¶ 362. In *Web IV*, the Judges found that this evidence would have justified "a higher minimum fee." 81 Fed. Reg. at 26397. Since then, SoundExchange's per-channel or station administrative costs have more than doubled. SX PFFCL ¶¶ 1544-51. Doubling the minimum fee is "eminently reasonable and appropriate." *See Web III Remand*, 79 Fed. Reg. at 23124.

Response to ¶ 369. Even if the Judges thought that some part of SoundExchange's $55 million in total costs should be excluded, its average per-channel or station administrative cost so vastly exceeds $500 that an increase in the minimum fee is warranted. SX PFFCL ¶¶ 1544-51. In any event, the methodology that SoundExchange has always used to calculate its average per-channel or station administrative cost is appropriate. SoundExchange's total administrative costs are costs incurred to administer the statutory license—because that is what SoundExchange does. Ex. 5625, App. A ¶ 4 (Bender WDT). For example, almost $42 million of those costs are operating administrative expenses, Ex. 3023 at 43, which largely consist of salaries of people who do royalty collection, processing and distribution. 9/9/20 Tr. 5873:24-5874:1 (Ploeger). Such costs are of the type described in Section 114(g)(3) that artists and copyright owners would not have to incur if they licensed their recordings in a free market. 9/9/20 Tr. 5894:2-18 (Ploeger). Inclusion of costs relating to collection, processing and distribution of non-webcasting royalties is appropriate, because SoundExchange's calculation of average per-channel or station administrative cost for webcasters allocated a portion of its total costs to non-webcaster licensees. Ex. 5625, App. A ¶ 48 (Bender WDT); 9/9/20 Tr. 5893:20-22 (Ploeger).

Response to ¶ 370. SoundExchange's use of 100 channels in its calculation of the average number of channels per webcaster was appropriate, because the minimum fee structure caps the number of channels or stations for which a commercial webcaster must pay a minimum fee at 100, and no noncommercial webcaster has more than 100 channels or stations. 37 C.F.R. § 380.10(b); Ex. 5625 ¶ 9 & n.2 (Ploeger WRT); Ex. 5625, App. A ¶ 49 (Bender WDT). Counting a webcaster like Pandora as having more than 100 channels would have resulted in allocating administrative costs to channels for which SoundExchange is not paid a minimum fee. 9/9/20 Tr. 5891:19-5893:9 (Ploeger). Because the Judges have determined that they will set the minimum fee with reference to SoundExchange's average per-channel or station administrative cost, it is appropriate to average its total costs over the number of stations for which it is paid a minimum fee.

iv. Inflation and Other Indicators Also Justify SoundExchange's Proposed Increase

Response to ¶ 371. Multiple other indicators suggest that an increase in the minimum fee is warranted. SX PFFCL ¶¶ 1558-66; *see supra* Resp. to ¶¶ 358, 361-62, 365.

Response to ¶ 372. Professor Steinberg's suggestion that the time of *Web IV* is the economically relevant base for an inflation adjustment is premised on the assumption that SoundExchange's litigation position in *Web IV* is a marketplace benchmark. *See* Ex. 3064 ¶ 12 (Steinberg CWRT). That is not so. *See supra* Resp. to ¶ 363.

Response to ¶ 373. SoundExchange's selection of 1998 as the base year for an inflation adjustment is reasonable. For commercial subscription webcasters, a $500 per channel or station minimum fee has been in place for usage since 1998. *In re Digital Performance Right in Sound Recordings and Ephemeral Recordings*, 69 Fed. Reg. 5693, 5698, 5702 (Feb. 6, 2004). For other webcasters, the per-channel or station metric did not go into effect until 2006. *Web II*, 72 Fed. Reg. at 24097 & n.39. However, the vast majority of webcasters have only a single channel or station (3,174 out of 3,589 in 2018). Ex. 5625, App. A ¶¶ 33, 49 (Bender WDT). For them, there is no difference between a per-licensee and a per-channel or station minimum.

v. The Need for an Increase in the Minimum Fee Is Reflected in SoundExchange's Settlement with CBI

Response to ¶ 374. SoundExchange's settlement with CBI in this proceeding provides that the minimum fee paid by the webcasters subject to it will increase in $50 steps to $750 in 2025. 85 Fed. Reg. 12745, 12746. SoundExchange was willing to agree to that more limited increase to avoid the complexities and incremental costs of litigating with a group of webcasters that collectively paid only $336,800 in statutory royalties (including reporting waiver fees) in 2018. SX PFFCL ¶ 1555. The Services have provided no reason to think that CBI's litigation cost savings were so different from SoundExchange's as to affect their minimum fee agreement, and no basis for quantifying any such difference. *See Web III Remand*, 79 Fed. Reg. at 23113 (rejecting litigation cost savings argument similar to the one made by the Services here).

Response to ¶ 375. The lower minimum fee for college broadcasters is also justified by the lower administrative costs they impose on SoundExchange. As amateur organizations, reporting by college broadcasters presents unique challenges. 9/9/20 Tr. 5890:20-5891:18 (Ploeger). Distributing their small royalty payments using proxy data solves those problems and saves costs. SX PFFCL ¶ 1556. That there might be professional webcasters with similarly low usage is irrelevant, because the Judges have prescribed reporting obligations for such webcasters, 37 C.F.R. § 370.4, and no participant in this proceeding has proposed a deviation from those reporting obligations. Less reporting by professional webcasters raises complicated policy issues, because it implies a less accurate royalty distribution. 9/9/20 Tr. 5891:19-5893:9 (Ploeger).

Dated: October 28, 2020

Respectfully submitted,

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Proof of Delivery

I hereby certify that on Friday, October 30, 2020, I provided a true and correct copy of the SoundExchange's Replies to the Services' Joint Proposed Findings of Fact and Conclusions of Law to the following:

Sirius XM Radio Inc., represented by Benjamin E. Marks, served via ESERVICE at benjamin.marks@weil.com

Educational Media Foundation, represented by David Oxenford, served via ESERVICE at doxenford@wbklaw.com

Pandora Media, LLC, represented by Benjamin E. Marks, served via ESERVICE at benjamin.marks@weil.com

National Religious Broadcasters Noncommercial Music License Committee, represented by Karyn K Ablin, served via ESERVICE at ablin@fhhlaw.com

National Association of Broadcasters, represented by Sarang V Damle, served via ESERVICE at sy.damle@lw.com

Google Inc., represented by Kenneth L Steinthal, served via ESERVICE at ksteinthal@kslaw.com

Signed: /s/ David A. Handzo